	STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS AND MINING AMENDED REPORT DIVISION OF OIL, GAS AND MINING												
	APPLICATION FOR PERMIT TO DRILL 1. WELL NAME and NUMBER Morgan State 921-36K1CS												
2. TYPE O	F WORK	DRILL NEW WELL	REENTER	P&A WELL		WELL (3. FIELD OR WILDCAT						
4. TYPE O	F WELL				hane Well: NO		£ .		5. UNIT or COMMUNI			ENT NAM	1E
6. NAME OF OPERATOR 7. OPERATOR PHONE													
KERR-MCGEE OIL & GAS ONSHORE, L.P. 720 929-6515 8. ADDRESS OF OPERATOR 9. OPERATOR E-MAIL													
	AL LEASE NUM		P.O. Box 173779		CO, 80217 NERAL OWNERS	NIID.			julie.j		anadarko	.com	
	., INDIAN, OR S				CTC.	DIAN (STATE 📵) FEE		DIAN	STATE	F	EE 🔵
13. NAME	OF SURFACE	OWNER (if box 12	= 'fee')						14. SURFACE OWNE	R PHONE	(if box 12	= 'fee')	
15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee') 16. SURFACE OWNER E-MAIL (if box 12 = 'fee')													
		R TRIBE NAME			TEND TO COMM		RODUCTION	FROM	19. SLANT				
(II box 12	= 'INDIAN')			YES	(Submit C	Comminglin	ng Applicatio	n) NO	VERTICAL DI	RECTION	AL 📵 H	HORIZON	ral 🔵
20. LOC/	ATION OF WELI	-		FOOTAGE	ES	QTR	R-QTR	SECTION	TOWNSHIP	R/	ANGE	М	ERIDIAN
LOCATIO	N AT SURFACI		2281	FNL 180	7 FWL	SE	ENW	36	9.0 S	2	1.0 E		S
Top of U	ppermost Prod	lucing Zone	2224	FSL 214	5 FWL	NE	ESW	36	9.0 S	2	1.0 E		S
At Total			2224	FSL 214			ESW	36	9.0 S	<u> </u>	21.0 E S		S
21. COUN	TY	UINTAH		22. DIS	STANCE TO NEA	REST LEA 214		et)	23. NUMBER OF ACR	ES IN DRI 63		IT	
					STANCE TO NEA ied For Drilling		eted)	POOL	26. PROPOSED DEPT	'H : 10640	TVD: 105	22	
27. ELEV	ATION - GROUN	5006		28. BC	OND NUMBER	22013	542		29. SOURCE OF DRIL WATER RIGHTS APPR		MBER IF A	PPLICAB	LE
					Hole, Casing			mation					
String	Hole Size	Casing Size	Length	Weight	Grade & T	hread	Max Mu	d Wt.	Cement		Sacks	Yield	Weight
Surf	12.25	8.625	0 - 2580	28.0	J-55 LT	T&C	0.2	2	Type V		180	1.15	15.8
Prod	7.875	4.5	0 - 10640	11.6	HCP-110	LT&C	13.0	n P	Class G emium Lite High Stre	nath	270 320	3.38	15.8
1100	7.075	4.5	0 - 10040	11.0	1101-110	LIGO	13.0	0 1	50/50 Poz	ingtii	1550		14.3
					A	TTACHN	MENTS						
	VEF	RIFY THE FOLLO	WING ARE AT	TACHED I	IN ACCORDAN	ICE WITH	H THE UTAI	H OIL AND GA	S CONSERVATION (SENERA	L RULES		
⊮ w	ELL PLAT OR M	AP PREPARED BY	LICENSED SURVE	YOR OR E	NGINEER		СОМР	LETE DRILLING	PLAN				
AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE) FORM 5. IF OPERATOR IS OTHER THAN THE LEASE OWNER													
I ✓ DII	RECTIONAL SU	RVEY PLAN (IF DIR	ECTIONALLY OR	HORIZON	ITALLY DRILLED)	торос	GRAPHICAL MA	.				
NAME D	anielle Piernot			TITLE R	egulatory Analys	t		PHONE 7	20 929-6156				
SIGNATU	RE			DATE 1	2/19/2011			EMAIL da	nielle.piernot@anadarko.	com			
	API NUMBER ASSIGNED APPROVAL APPROVAL												
								Per	mit Manager				

Drilling Program Morgan State 921-36F3 Pad 1 of 9

Kerr-McGee Oil & Gas Onshore. L.P.

MORGAN STATE 921-36K1CS

Surface: 2281 FNL / 1807 FWL **SENW** BHL: 2224 FSL / 2145 FWL **NESW**

Section 36 T9S R21E

Unitah County, Utah Mineral Lease: ML-22265

ONSHORE ORDER NO. 1

DRILLING PROGRAM

Estimated Tops of Important Geologic Markers: 1. & 2.a Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations:

<u>Formation</u>	<u>Depth</u>	<u>Resource</u>
Uinta	0 - Surface	
Green River	1,349'	
Birds Nest	1,628'	Water
Mahogany	2,126'	Water
Wasatch	4,580'	Gas
Mesaverde	7,254'	Gas
Sego	9,444'	Gas
Castlegate	9,494'	Gas
MN5	9,922'	Gas
TVD =	10,522'	
TD =	10,640'	

2.c Kerr McGee Oil & Gas Onshore LP (Kerr McGee) will either drill to the the Blackhawk formation, which is part of the Mesaverde formation, or the Wasatch/Mesaverde formation. If Kerr McGee drills to the Blackhawk formation (part of the Mesaverde formation), please refer to MN5 as the bottom formation. The attached Blackhawk Drilling Program includes Total Vertical Depth, Total Depth, and appropriate casing and cement programs for the deeper formation.

If Kerr McGee drills to the Wasatch/Mesaverde formation please refer to Sego as the bottom formation. The attached Wasatch/Mesaverde Drilling Program includes Total Vertical Depth, Total Depth, and appropriate casing and cement programs for the depths the Wasatch/Mesaverde formations are found.

Pressure Control Equipment (Schematic Attached) 3.

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program

API Well Number: 43047522870000

Morgan State 921-36F3 Pad

Drilling Program
2 of 9

4. Proposed Casing & Cementing Program:

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program

5. <u>Drilling Fluids Program:</u>

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program

6. <u>Evaluation Program</u>:

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program

7. <u>Abnormal Conditions</u>:

7.a Blackhawk (Part of Mesaverde Formation) Target Formation

Maximum anticipated bottom hole pressure calculated at 10522' TVD, approximately equals 6,945 psi (0.66 psi/ft = actual bottomhole gradient)

Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD

Maximum anticipated surface pressure equals approximately 4,678 psi (bottom hole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot, per Onshore Order No. 2).

Per Onshore Order No. 2 - Max Anticipated Surf. Press.(MASP) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point))

7.b Wasach/Mesaverde Target Formation

Maximum anticipated bottom hole pressure calculated at 9444' TVD, approximately equals 6,044 psi (0.64 psi/ft = actual bottomhole gradient)

Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD

Maximum anticipated surface pressure equals approximately 3,953 psi (bottom hole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot, per Onshore Order No. 2).

Per Onshore Order No. 2 - Max Anticipated Surf. Press.(MASP) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point))

8. Anticipated Starting Dates:

Drilling is planned to commence immediately upon approval of this application.

9. <u>Variances:</u>

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program Onshore Order #2 – Air Drilling Variance

Kerr-McGee Oil & Gas Onshore LP (KMG) respectfully requests a variance to several requirements associated with air drilling outlined in Onshore Order 2

- · Blowout Prevention Equipment (BOPE) requirements;
- · Mud program requirements; and
- Special drilling operation (surface equipment placement) requirements associated with air drilling.

Morgan State 921-36F3 Pad **Drilling Program**

> This Standard Operating Practices addendum provides supporting information as to why KMG current air drilling practices for constructing the surface casing hole should be granted a variance to Onshore Order 2 air drilling requirements.

The reader should note that the air rig is used only to construct a stable surface casing hole through a historically difficult lost circulation zone. A conventional rotary rig follows the air rig, and is used to drill and construct the majority of the wellbore.

More notable, KMG has used the air rig layout and procedures outlined below to drill the surface casing hole in approximately 675 wells without incident of blow out or loss of life.

Background

In a typical well, KMG utilizes an air rig for drilling the surface casing hole, an interval from the surface to surface casing depths, which varies in depth from 1,700 to 2,800 feet. The air rig drilling operation does not drill through productive or over pressured formations in KMG field, but does penetrate the Uinta and Green River Formations. The purpose of the air drilling operation is to overcome the severe loss circulation zone in the Green River known as the Bird's Nest while creating a stable hole for the surface casing. The surface casing hole is generally drilled to approximately 500 feet below the Bird's Nest.

Before the surface air rig is mobilized, a rathole rig is utilized to set and cement conductor pipe through a competent surface formation. Generally, the conductor is set at 40 feet. In some cases, conductor may be set deeper in areas that the surface formation is not found competent. This rig also drills the rat and mouse holes in preparation for the surface casing and production string drilling operations.

The air rig is then mobilized to drill the surface casing hole by drilling a 12 1/4 inch hole for the first 200 feet, then will drill a 11inch hole to just above the Bird's Nest interval with an air hammer. The hammer is then tripped and replaced with a 11 inch tri-cone bit. The tri-cone bit is used to drill to the surface casing point, approximately 500 feet below the loss circulation zone (Bird's Nest). The 8-5/8 inch surface casing is then run and cemented in place, thereby isolating the lost circulation zone.

KMG fully appreciates Onshore Order 2 well control and safety requirements associated with a typical air drilling operations. However, the requirements of Onshore Order 2 are excessive with respect to the air rig layout and drilling operation procedures that are currently in practice to drill and control the surface casing hole in KMG Fields.

Variance for BOPE Requirements

The air rig operation utilizes a properly lubricated and maintained air bowl diverter system which diverts the drilling returns to a six-inch blooie line. The air bowl is the only piece of BOPE equipment which is installed during drilling operations and is sufficient to contain the air returns associated with this drilling operation. As was discussed earlier, the drilling of the surface hole does not encounter any over pressured or productive zones, and as a result standard BOPE equipment should not be required. In addition, standard drilling practices do not support the use of BOPE on 40 feet of conductor pipe.

Variance for Mud Material Requirements

Onshore Order 2 also states that sufficient quantities of mud materials shall be maintained or readily accessible for the purpose of assuring adequate well control. Once again, the surface hole drilling operations does not encounter over pressured or productive intervals, and as a result there is not a need to control pressure in the surface hole with a mud system. Instead of mud, the air rigs utilize water from the reserve pit for well control, if necessary. A skid pump which is located near the reserve pit (see attachment) will supply the water to the well bore.

Variance for Special Drilling Operation (surface equipment placement) Requirements

Onshore Order 2 requires specific safety distances or setbacks for the placement of associated standard air drilling equipment, wellbore, and reserve pits. The air rigs used to drill the surface holes are not typical of an air rig used to drill a producing hole in other parts of the US. These are smaller in nature and designed to fit a KMG location. The typical air rig layout for drilling surface hole in the field is attached.

Morgan State 921-36F3 Pad

Drilling Program 4 of 9

Typically the blooie line discharge point is required to be 100 feet from the well bore. In the case of a KMG well, the reserve pit is only 45 feet from the rig and is used for the drill cuttings. The blooie line, which transports the drill cuttings from the well to the reserve pit, subsequently discharges only 45 feet from the well bore.

Typically the air rig compressors are required to be located in the opposite direction from the blooie line and a minimum of 100 feet from the well bore. At the KMG locations, the air rig compressors are approximately 40 feet from the well bore and approximately 60 feet from the blooie line discharge due to the unique air rig design. The air compressors (see attachment) are located on the rig (1250 cfm) and on a standby trailer (1170 cfm). A booster sits between the two compressors and boosts the output from 350 psi to 2000 psi. The design does put the booster and standby compressor opposite from the blooie line.

Lastly, Onshore Order 2 addresses the need for an automatic igniter or continuous pilot light on the blooie line. The air rig does not utilize an igniter as the surface hole drilling operation does not encounter productive formations.

Variance for FIT Requirements

KMG also respectfully requests a variance to Onshore Order 2, Section III, Part Bi, for the pressure integrity test (PIT, also known as a formation integrity test (FIT)). This well is not an exploratory well and is being drilled in an area where the formation integrity is well known. Additionally, when an FIT is run with the mud weight as required, the casing shoe frequently breaks down and causes subsequent lost circulation when drilling the entire depth of the well.

Conclusion

The air rig operating procedures and the attached air rig layout have effectively maintained well control while drilling the surface holes in KMG Fields. KMG respectfully requests a variance from Onshore Order 2 with respect to air drilling well control requirements as discussed above.

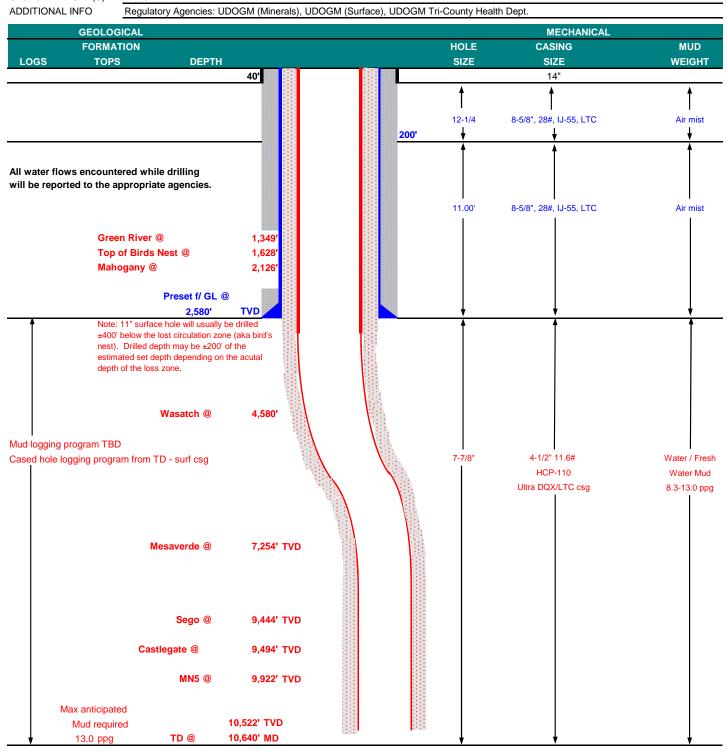
10. **Other Information:**

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program



KERR-McGEE OIL & GAS ONSHORE LP BLACKHAWK DRILLING PROGRAM

COMPANY NAME KER	R-McGEE OIL &	GAS ONSHORE	LP		DATE	December	19, 2011		
WELL NAME MORGAN STATE 921-36K1CS						10,522'	TVD	10,640' MD	
FIELD Natural Butte	COUNTY Uintah		STATE Utal	1	FINISHED ELEVATION		5,005'		
SURFACE LOCATION	SENW	2281 FNL	1807 FWL	Sec 36	T 9S	R 21E			
	Latitude:	39.993515	Longitude:	-109.502	2341		NAD 27		
BTM HOLE LOCATION	NESW	2224 FSL	2145 FWL	Sec 36	T 9S	R 21E			
	Latitude:	39.991561	Longitude:	-109.501	1132		NAD 27		
OBJECTIVE ZONE(S)	BLACKHAWK						_		
ADDITIONAL INFO	Regulatory Age	ncies: UDOGM (Minerals) LIDO	GM (Surface) LIDOG	M Tri-County F	lealth Dent		





KERR-McGEE OIL & GAS ONSHORE LP BLACKHAWK DRILLING PROGRAM

CASING PROGRAM	DESIGN FACTORS										
										LTC	DQX
	SIZE	INT	ERVA	L	WT.	GR.	CPLG.	BURST	COLLAPSE	TE	NSION
CONDUCTOR	14"	(0-40'								
								3,390	1,880	348,000	N/A
SURFACE	8-5/8"	0	to	2,580	28.00	IJ-55	LTC	2.09	1.56	5.50	N/A
								10,690	8,650	279,000	367,174
PRODUCTION	4-1/2"	0	to	5,000	11.60	HCP-110	DQX	1.19	1.22		3.71
	4-1/2"	5,000	to	10,640'	11.60	HCP-110	LTC	1.19	1.22	5.32	

Surface Casing:

(Burst Assumptions: TD = 13.0 ppg) 0.73 psi/ft = frac gradient @ surface shoe

Fracture at surface shoe with 0.1 psi/ft gas gradient above

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

Production casing:

(Burst Assumptions: Pressure test with 8.4ppg @ 9000 psi) 0.66 psi/ft = bottomhole gradient

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

CEMENT PROGRAM

	FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	Ī	YIELD
SURFACE LEAD	500'	Premium cmt + 2% CaCl	180	60%	15.80		1.15
Option 1		+ 0.25 pps flocele					
TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt	270	0%	15.80		1.15
		+ 2% CaCl + 0.25 pps flocele					
SURFACE		NOTE: If well will circulate water to	surface, opt	ion 2 will be	utilized		
Option 2 LEAD	2,080'	65/35 Poz + 6% Gel + 10 pps gilsonite	190	35%	11.00		3.82
		+ 0.25 pps Flocele + 3% salt BWOW					
TAIL	500'	Premium cmt + 2% CaCl	150	35%	15.80		1.15
		+ 0.25 pps flocele					
TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.80		1.15
PRODUCTION LEAD	4,080'	Premium Lite II +0.25 pps	320	35%	12.00		3.38
		celloflake + 5 pps gilsonite + 10% gel					
		+ 0.5% extender					
TAIL	6,560'	50/50 Poz/G + 10% salt + 2% gel	1,550	35%	14.30		1.31
		+ 0.1% R-3					

^{*}Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

FLOAT EQUIPMENT & CENTRALIZERS

SURFACE	Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe
PRODUCTION	Float shoe, 1 jt, float collar. 15 centralizers for a Mesaverde and 20 for a Blackhawk well.

ADDITIONAL INFORMATION

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

BOPE: 11" 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet. Function test rams on each trip. Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper and lower kelly valves.

Surveys	will	be	taken	at	1,	,000'	minimum	intervals	Ġ.

Most rigs have PVT System for mud monitoring. If no PVT is available, visual monitoring will be utilized.

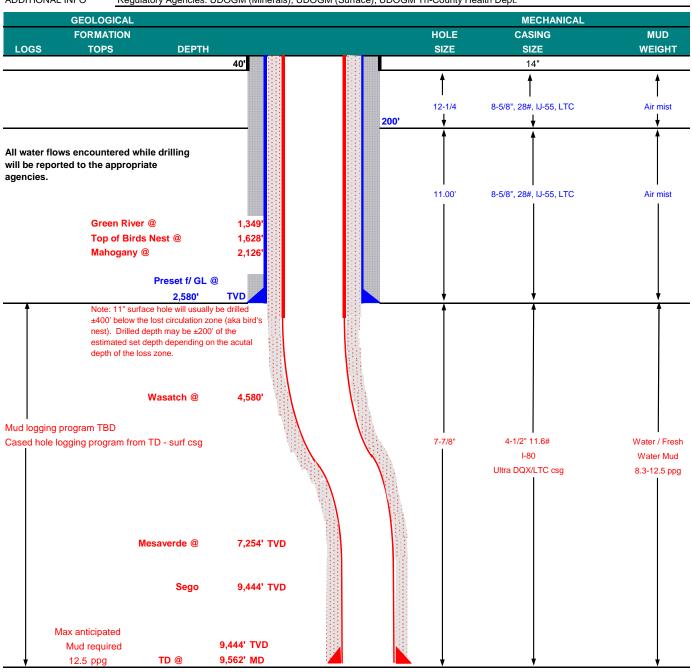
	Wost figs have FVT System for muu	monitoring. If no FVT is available, visual monitoring will be utilized.		
DRILLING	ENGINEER:		DATE:	
		Nick Spence / Danny Showers / Chad Loesel	_	
DRILLING	SUPERINTENDENT:		DATE:	
		Kenny Gathings / Lovel Young	_	

^{*}Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained



KERR-McGEE OIL & GAS ONSHORE LP WASATCH/MESAVERDE DRILLING PROGRAM

COMPANY NAME KER	R-McGEE OIL	& GAS ONSHOR	E LP		DATE	December 19, 2011					
WELL NAME MO	RGAN STAT	ΓΕ 921-36K10	CS	TD	9,444'	TVD	9,562' MD				
FIELD Natural Butte	S	COUNTY	Uintah S	TATE Utah	1	FINI	SHED ELEVATION_	5,005'			
SURFACE LOCATION	SENW	2281 FNL	1807 FWL	Sec 36	T 9S	R 21E					
	Latitude:	39.993515	Longitude:	-109.502	2341		NAD 27				
BTM HOLE LOCATION	NESW	2224 FSL	2145 FWL	Sec 36	T 9S	R 21E					
	Latitude:	39.991561	Longitude:	-109.501	1132		NAD 27				
OBJECTIVE ZONE(S)	Wasatch/Mes	averde									
ADDITIONAL INFO	Regulatory Ac	encies: UDOGM	(Minerals), UDC	OGM (Surfac	ce). UDC	GM Tri-Count	v Health Dept.				





KERR-McGEE OIL & GAS ONSHORE LP

WASATCH/MESAVERDE DRILLING PROGRAM

CASING PROGRAM	<u>1</u>								DESIGN FACTORS			
										LTC	DQX	
	SIZE	INT	ERVAL	Ц	WT.	GR.	CPLG.	BURST	COLLAPSE	TE	NSION	
CONDUCTOR	14"	()-40'									
								3,390	1,880	348,000	N/A	
SURFACE	8-5/8"	0	to	2,580	28.00	IJ-55	LTC	2.09	1.56	5.50	N/A	
								7,780	6,350		267,035	
PRODUCTION	4-1/2"	0	to	5,000	11.60	I-80	DQX	1.11	1.03		2.98	
								7,780	6,350	223,000		
	4-1/2"	5,000	to	9,562'	11.60	I-80	LTC	1.11	1.03	5.21		

Surface Casing:

(Burst Assumptions: TD = 12.5 0.73 psi/ft = frac gradient @ surface shoe ppg)

Fracture at surface shoe with 0.1 psi/ft gas gradient above

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

Production casing:

(Burst Assumptions: Pressure test with 8.4ppg @ 7000 0.64 psi/ft = bottomhole gradient psi)

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

CEMENT PROGRAM

	FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGH	T	YIELD
SURFACE LEAD	500'	Premium cmt + 2% CaCl	180	60%	15.80		1.15
Option 1		+ 0.25 pps flocele					
TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt	270	0%	15.80		1.15
		+ 2% CaCl + 0.25 pps flocele					
SURFACE		NOTE: If well will circulate water to	surface, opt	ion 2 will be	utilized		
Option 2 LEAD	2,080'	65/35 Poz + 6% Gel + 10 pps gilsonite	190	35%	11.00		3.82
		+ 0.25 pps Flocele + 3% salt BWOW					
TAIL	500'	Premium cmt + 2% CaCl	150	35%	15.80		1.15
		+ 0.25 pps flocele					
TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.80		1.15
PRODUCTION LEAD	4,072'	Premium Lite II +0.25 pps	320	35%	12.00		3.38
		celloflake + 5 pps gilsonite + 10% gel					
		+ 0.5% extender					
TAIL	5,490'	50/50 Poz/G + 10% salt + 2% gel	1,300	35%	14.30		1.31
		+ 0.1% R-3					

^{*}Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

FLOAT EQUIPMENT & CENTRALIZERS

SURFACE	Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe
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ADDITIONAL INFORMATION

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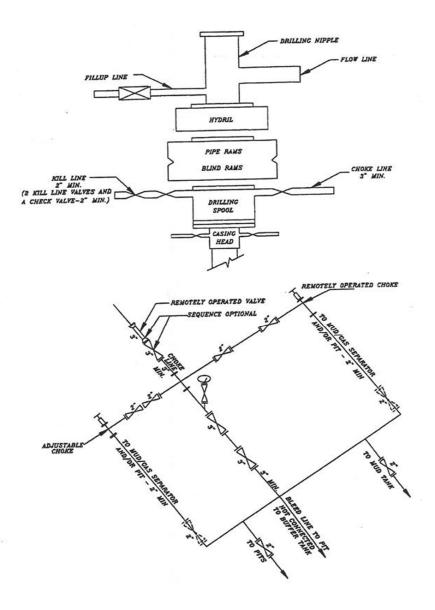
BOPE: 11" 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet. Function test rams on each trip. Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper and lower kelly valves.

Surveys will be taken at 1,000' minimum interval	s.
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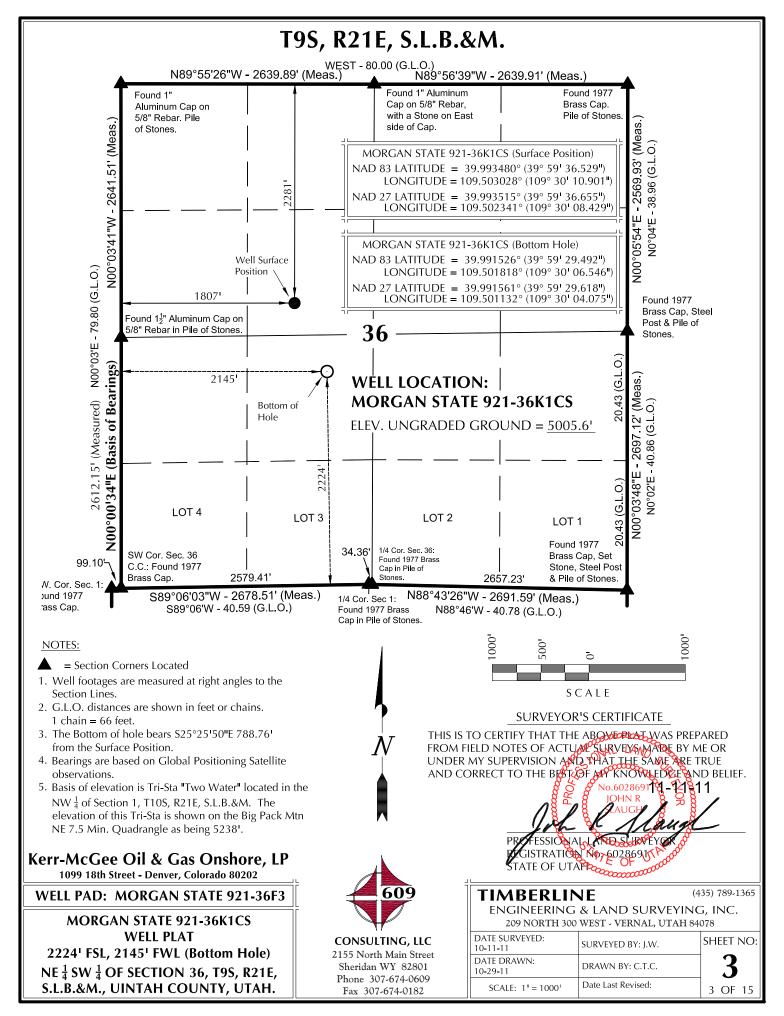
	Most rigs have PVT System for mu	d monitoring. If no PVT is available, visual monitoring will be utilize	ea.	
DRILLING	ENGINEER:		DATE:	
		Nick Spence / Danny Showers / Chad Loesel		
DRILLING	SUPERINTENDENT:		DATE:	
		Kenny Gathings / Lovel Young		

^{*}Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

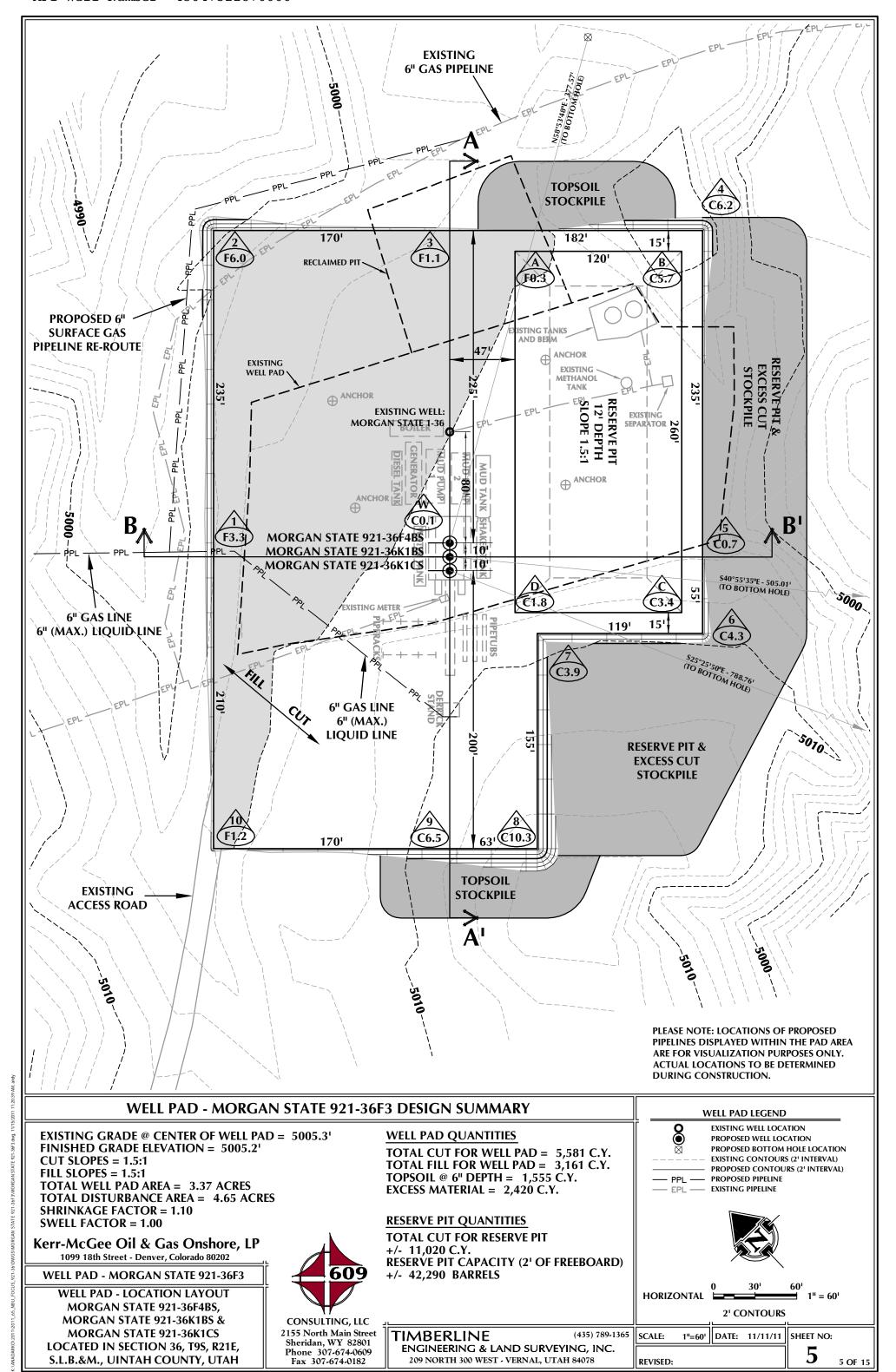
EXHIBIT A
MORGAN STATE 921-36K1CS



SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK



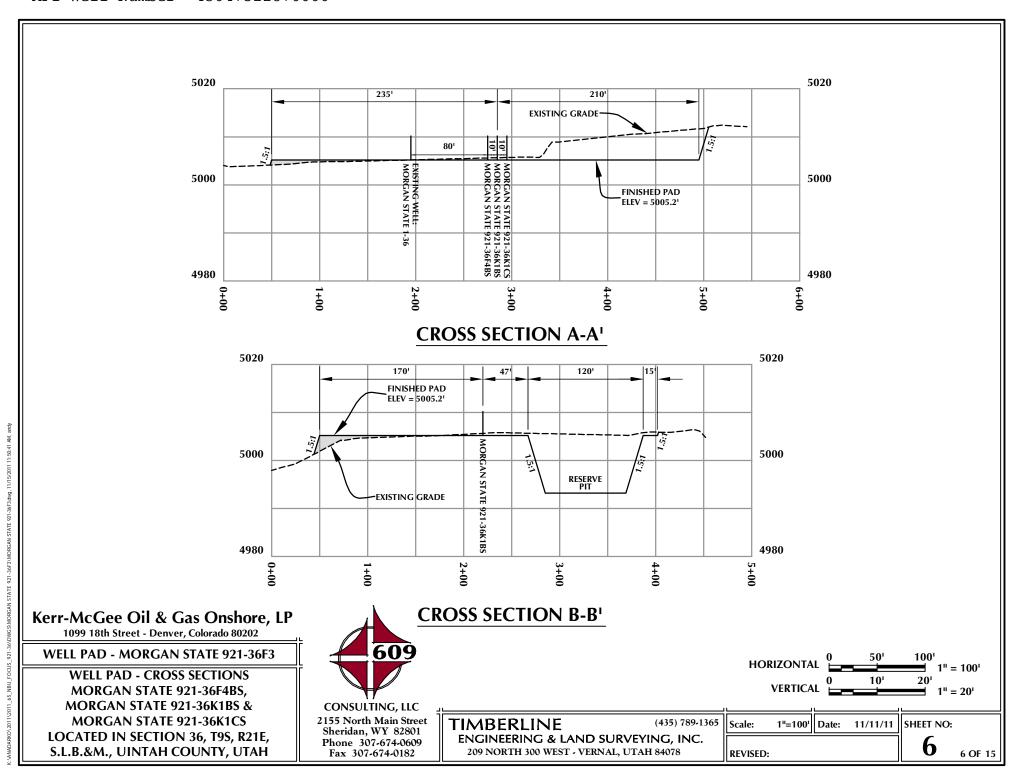
WELL NAME	NAD		RFACE POSITION NAD27			NAI		OTTOM HOLE NAI	727	
I VIELE IVIIVIE	LATITUDE	LONGITUDE		NGITUDE	FOOTAGES	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	FOOTAGES
MORGAN STATE 921-36F4BS	39°59'36.672" 39.993520°	109°30'10.723" 109.502978°		30'08.251" 502292°	2266' FNL 1820' FWL	39°59'38.600" 39.994056°	109°30'06.571" 109.501825°	39°59'38.726" 39.994091°	109°30'04.100" 109.501139°	2071' FNL 2144' FWL
MORGAN STATE	39°59'36.600"	109°30'10.812"	39°59'36.726" 109°	30'08.340"	2274' FNL	39°59'32.832"	109°30'06.560"	39°59'32.958"	109.301139 109°30'04.089"	2562' FSL
921-36K1BS MORGAN STATE	39.993500° 39°59'36.529"	109.503003° 109°30'10.901"		502317° '30'08.429"	1814' FWL 2281' FNL	39.992453° 39°59'29.492"	109.501822° 109°30'06.546"	39.992488° 39°59'29.618"	109.501136° 109°30'04.075"	2144' FWL 2224' FSL
921-36K1CS	39.993480°	109.503028°	39.993515° 109.	502341°	1807' FWL	39.991526°	109 30 00.340 109.501818°	39.991561°	109.501132°	2145' FWL
MORGAN STATE 1-36	39°59'37.244" 39.993679°	109°30'10.014" 109.502782°		30'07.543" 502095°	2209' FNL 1876' FWL					
	33.3330, 3	109.302702	RELATIVE COO			Position to Bott	om Hole			
WELL NAME	NORTH		LL NAME NORTH	I EAS			TH EAST			
MORGAN STATE 921-36F4BS	195.0¹		GAN STATE -381.6	330.	.8' MORGA 921-36k	AN STATE (1CS -712	337.7'			
BASIS OF BE OF THE SW S.L.B.&M. W GLOBAL PC	EARINGS IS TH	HE WEST LINE N 36, T9S, R21 EN FROM	/	-08 - 36 - 185 o - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	N Son		No will hope	8,8966 ⁷ ,7,57 ¹ ,36		
		a Gas Ons			atom To	54.56944 154.56944 154.56944 154.56944 154.56944 154.56944 154.56944 154.56944 154.56944 154.56944 154.56944 154.56944 154.56944 154.56944 154.56944 154.56944 154.56944 154.56944 154.56944 154.5694 154	Sko. St. St. St. St. St. St. St. St. St. St	1300300 John 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
		a Gas Ons			atom To	04.56944 1788.76	Sko SS	150 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		
1099 18	8th Street - De		80202		609	56944 161788.76	SEO STATE OF THE PROPERTY OF T			35) 789-1365
1099 18 WELL PAD	8th Street - De	nver, Colorado N STATE 92	1-36F3		609	56944 161788.76	engineerin	G & LAND	SURVEYING	G, INC.
WELL PAD	8th Street - De - MORGA PAD INTERI	nver, Colorado N STATE 92 FERENCE PL	1-36F3 AT	CONST		569AA 76 / TR8.76 / T	engineerin	G & LAND 800 WEST - VER	SURVEYING RNAL, UTAH 84	G, INC. 078
WELL PAD WELL I WELLS -	8th Street - De - MORGA PAD INTERI MORGAN ST	nver, Colorado N STATE 92	1-36F3 AT BS,		609 ULTING, LLC orth Main Stre	509AA 76 DAT 10-1	ENGINEERIN 209 NORTH 3 E SURVEYED: 1-11	G & LAND	SURVEYING RNAL, UTAH 84	G, INC. 078
WELL PAD WELL I WELLS - MOR	8th Street - De - MORGA PAD INTERI MORGAN STATE STREET	N STATE 92 FERENCE PL FATE 921-36F4	1-36F3 AT BS,	2155 No Sherida	ULTING, LLO	569AA 76 DAT 10-1 DAT 10-1 10-2	ENGINEERIN 209 NORTH 3 E SURVEYED: 1-11 E DRAWN:	G & LAND 800 WEST - VER	SURVEYINC RNAL, UTAH 84 BY: J.W.	G, INC.



S.L.B.&M., UINTAH COUNTY, UTAH

209 NORTH 300 WEST - VERNAL, UTAH 84078

REVISED:



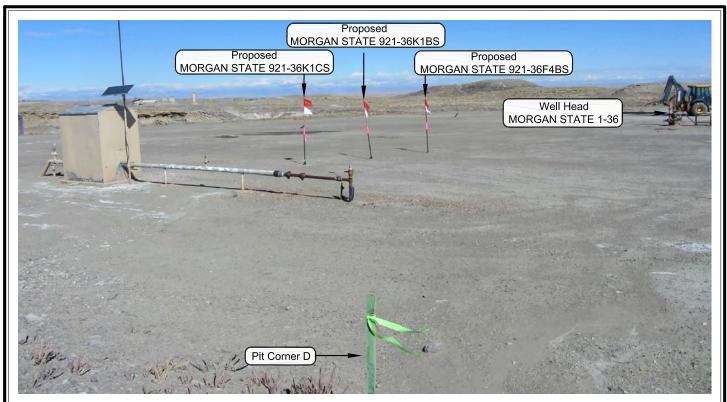


PHOTO VIEW: FROM PIT CORNER D TO LOCATION STAKE

CAMERA ANGLE: NORTHERLY



PHOTO VIEW: FROM EXISTING ACCESS ROAD

CAMERA ANGLE: NORTHEASTERLY

Kerr-McGee Oil & Gas Onshore, LP

1099 18th Street - Denver, Colorado 80202

WELL PAD - MORGAN STATE 921-36F3

LOCATION PHOTOS MORGAN STATE 921-36F4BS, MORGAN STATE 921-36K1BS & **MORGAN STATE 921-36K1CS LOCATED IN SECTION 36, T9S, R21E,** S.L.B.&M., UINTAH COUNTY, UTAH.



CONSULTING, LLC 2155 North Main Street Sheridan WY 82801 Phone 307-674-0609

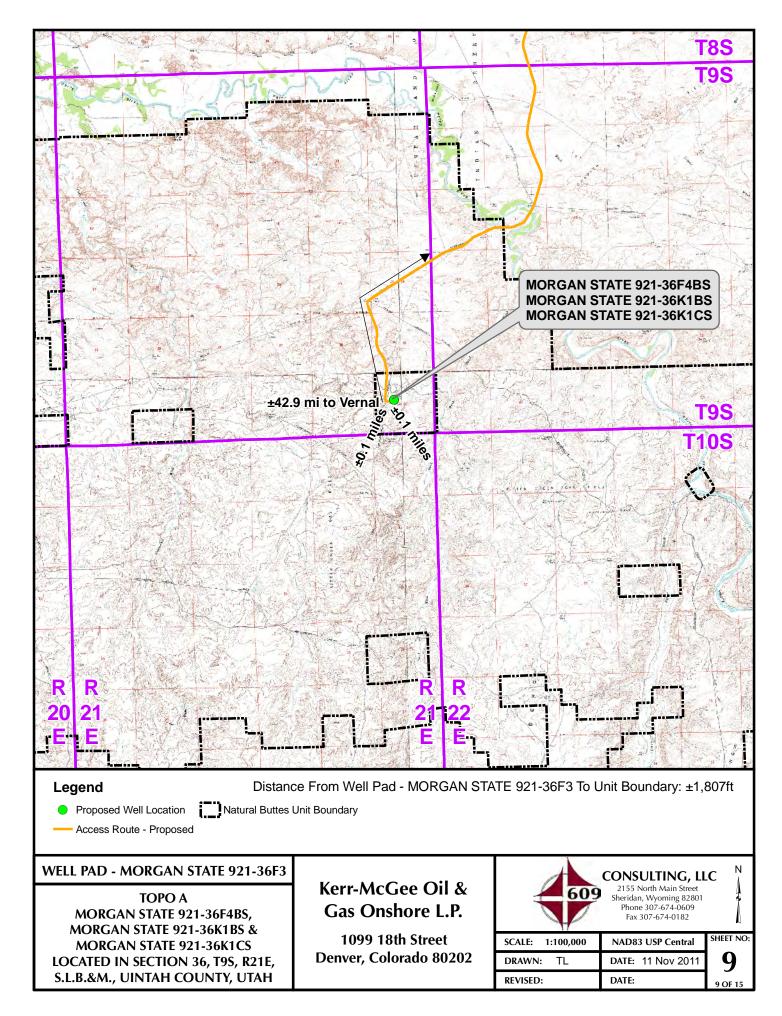
Fax 307-674-0182

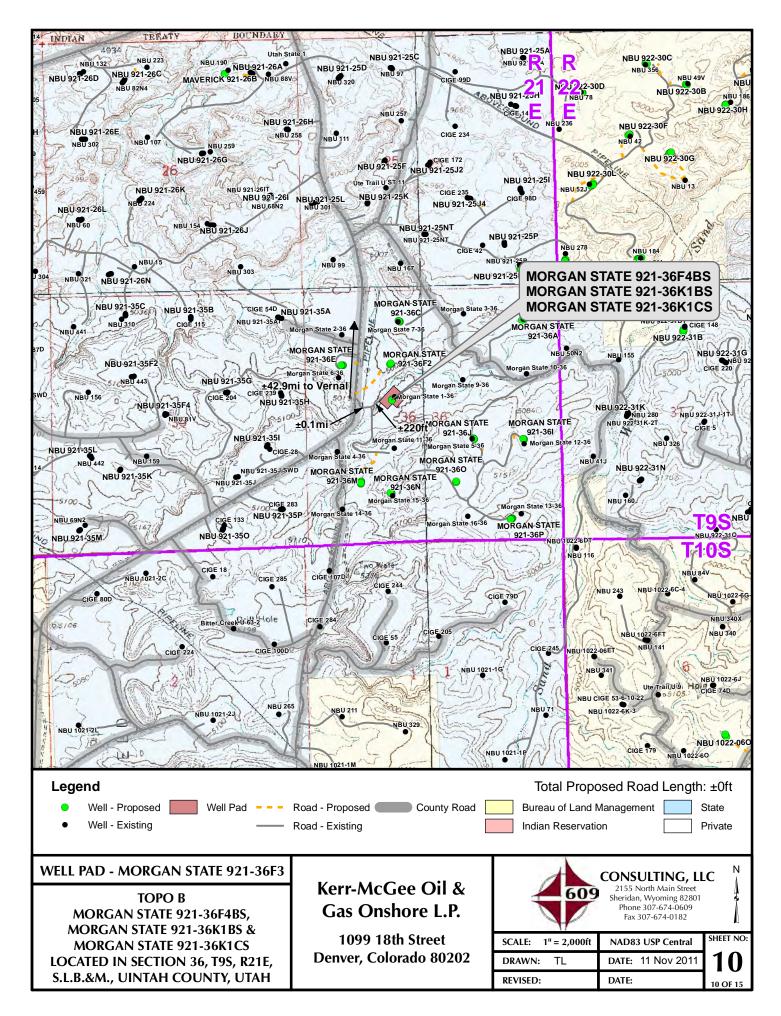
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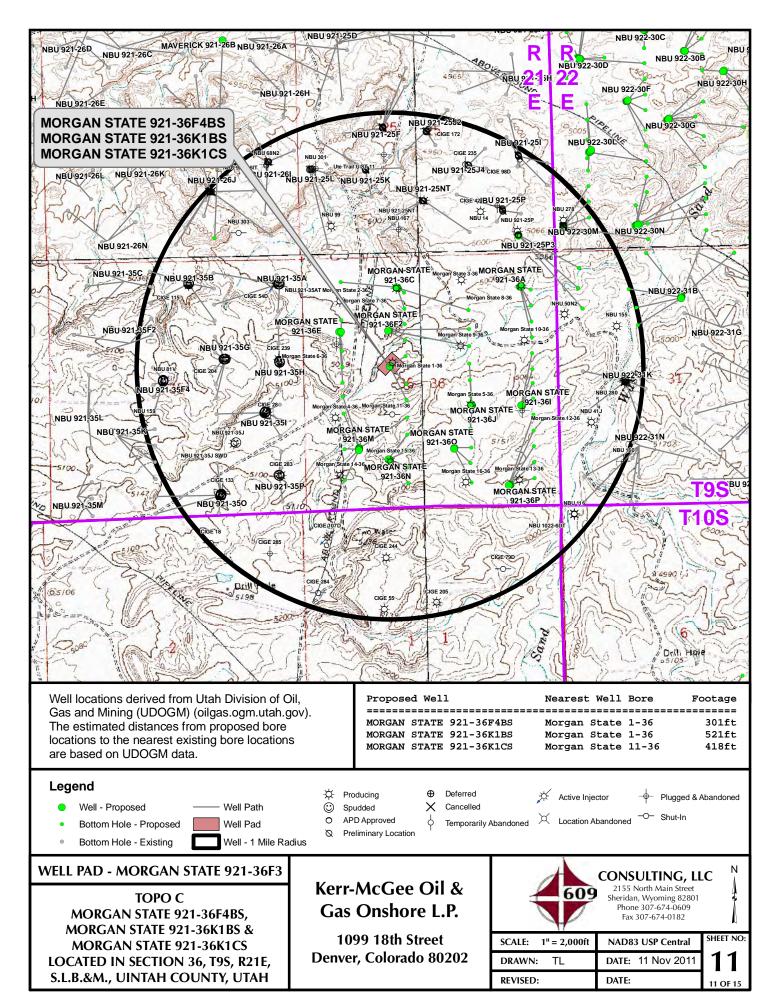
(435) 789-1365

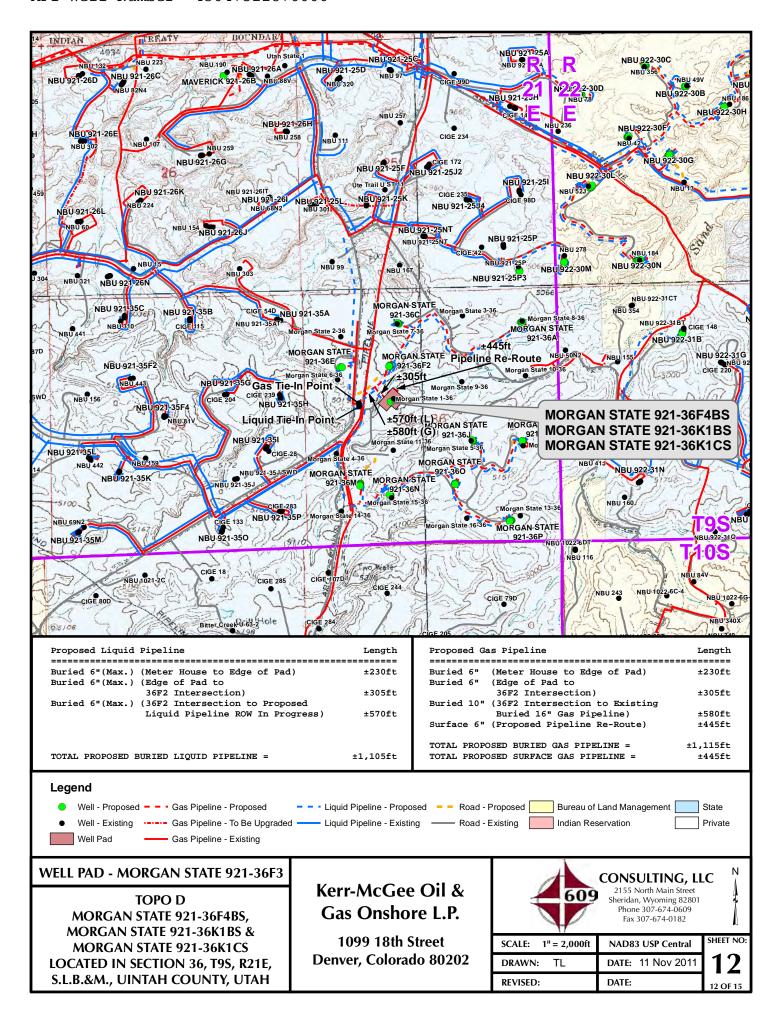
ENGINEERING & LAND SURVEYING, INC. 209 NORTH 300 WEST - VERNAL, UTAH 84078

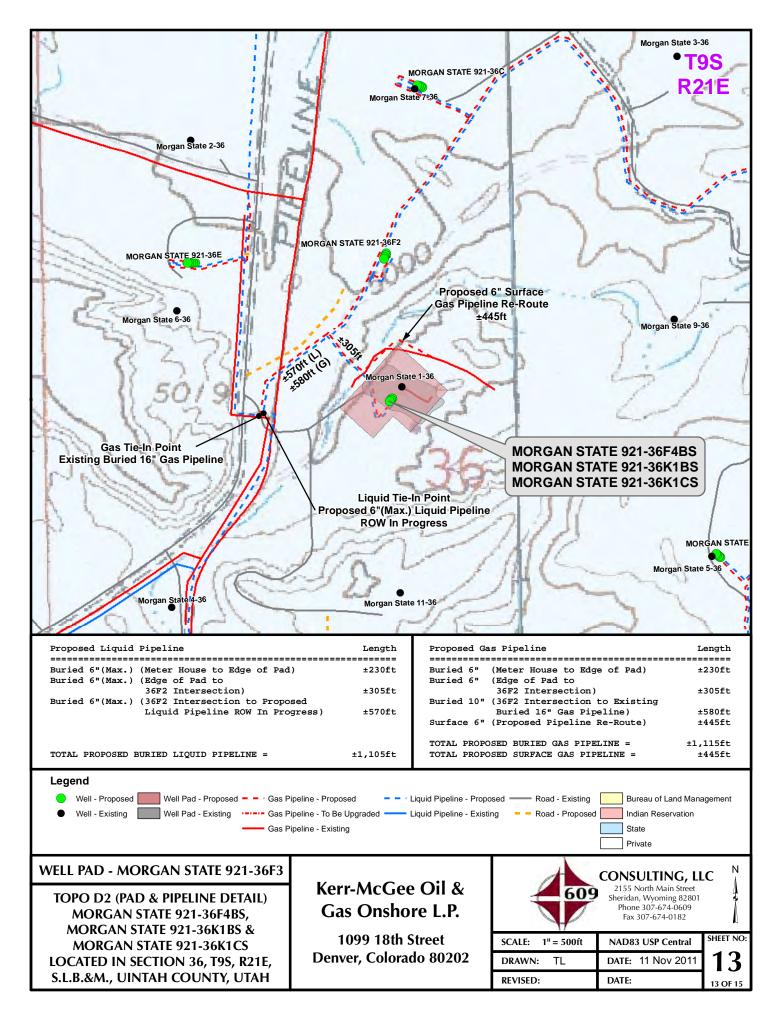
DATE PHOTOS TAKEN: 10-11-11	PHOTOS TAKEN BY: J.W.	SHEET NO:
DATE DRAWN: 10-29-11	DRAWN BY: C.T.C.	8
Date Last Revised:		8 OF 15

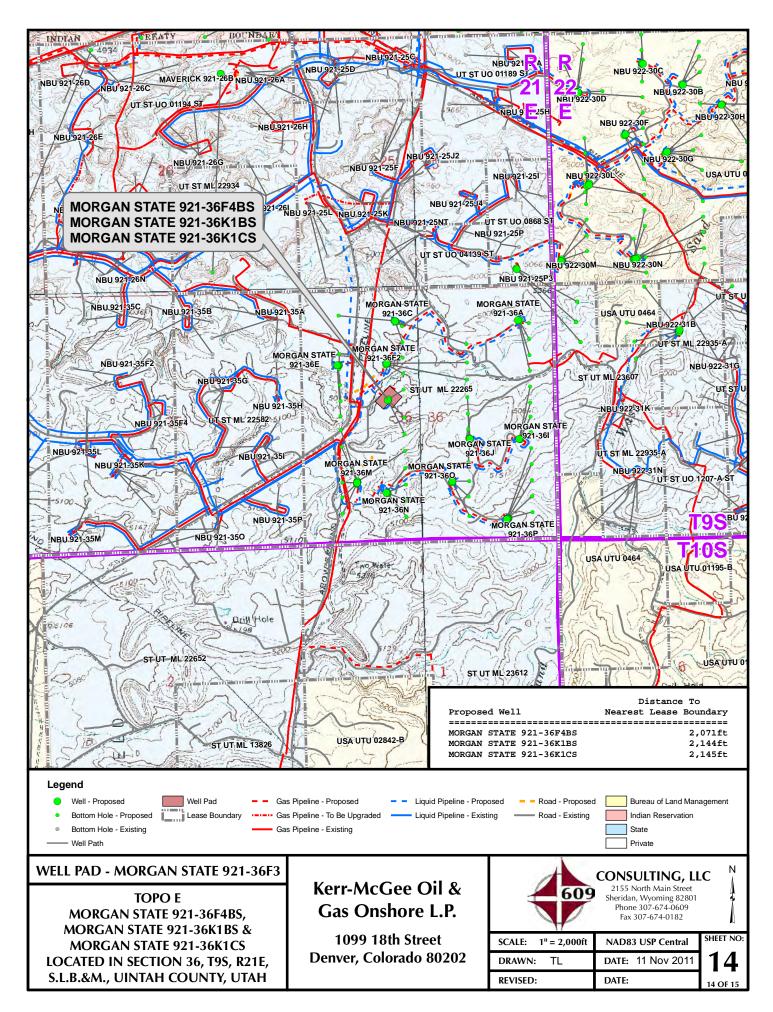












Kerr-McGee Oil & Gas Onshore, LP WELL PAD – MORGAN STATE 921-36F3 WELLS – MORGAN STATE 921-36F4BS, MORGAN STATE 921-36K1BS & MORGAN STATE 921-36K1CS Section 36, T9S, R21E, S.L.B.&M.

From the intersection of U.S. Highway 40 and 500 East Street in Vernal, Utah, proceed in an easterly, then southerly direction along U.S. Highway 40 approximately 3.3 miles to the junction of State Highway 45. Exit right and proceed in a southerly direction along State Highway 45 approximately 20.2 miles to the junction of the Glen Bench Road (County B Road 3260). Exit right and proceed in a southwesterly direction along the Glen Bench Road approximately 19.4 miles to a service road to the southeast. Exit left proceeding in a southeasterly direction along the service road approximately 0.1 miles to a second service road to the northeast. Exit left and proceed in a northeasterly direction along the second service road approximately 220 feet to the proposed well location.

Total distance from Vernal, Utah to the proposed well location is approximately 43.0 miles in a southerly direction.

SHEET 15 OF 15

API Well Number: 43047 522267 OUTAB - UTM (feet), NAD27, Zone 12N

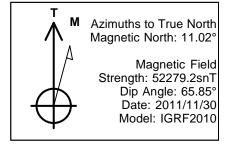
Site: MORGAN STATE 921-36F3 PAD Well: MORGAN STATE 921-36K1CS

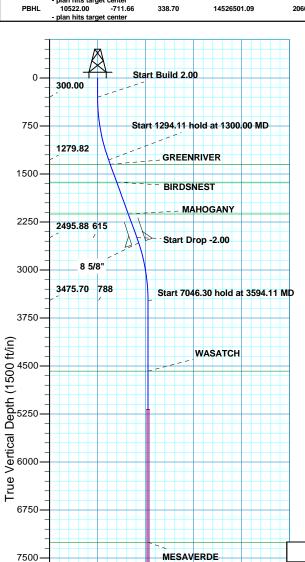
Wellbore: OH

Design: PLAN #1 PRELIMINARY



WELL DETAILS: MORGAN STATE 921-36K1CS GL 5005 & KB 4 @ 5009.00ft (ASSUMED) +N/-S Northing Latittude Easting Longitud 0.00 14527206.96 2059896.59 39° 59' 36.654 N 109° 30' 8.428 W DESIGN TARGET DETAILS +N/-S -711.66 +E/-W 338.70 Northing 14526501.09 Easting 2060247.20 Latitude 39° 59' 29.620 N Name TVD BLACKHAWK 9922.00 Longitude 109° 30' 4.075 W Shape Circle (Radius: 25.00) - plan hits ta center 10522.00 -711.66 14526501.09 39° 59' 29.620 N 109° 30' 4.075 W Circle (Radius: 100.00 2060247.20 plan hits target center





8250

9000

9750

10500

11250

SEGO

CASTLEGATE

10522.00 788

BLACKHAWK

TD at 10640.41

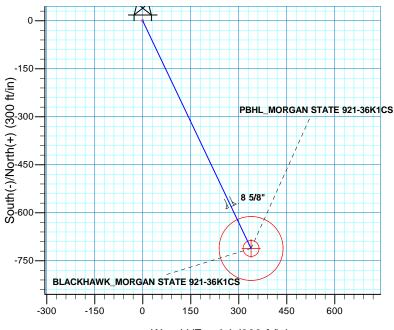
1500

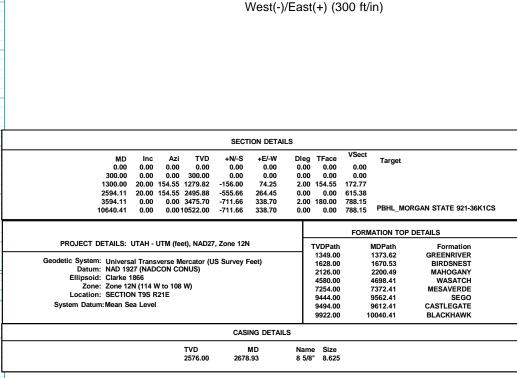
Vertical Section at 154.55° (1500 ft/in)

2250

Scientific Drilling

Rocky Mountain Operations





Plan: PLAN #1 PRELIMINARY (MORGAN STATE 921-36K1CS/OH) Created By: RobertScott Date: 15:42. November 30 2011

API Well Number: 43047522870000



US ROCKIES REGION PLANNING

UTAH - UTM (feet), NAD27, Zone 12N MORGAN STATE 921-36F3 PAD MORGAN STATE 921-36K1CS

OH

Plan: PLAN #1 PRELIMINARY

Standard Planning Report

30 November, 2011



API Well Number: 43047522870000



SDIPlanning Report



Database: EDM5000-RobertS-Local Company: US ROCKIES REGION P

US ROCKIES REGION PLANNING UTAH - UTM (feet), NAD27, Zone 12N MORGAN STATE 921-36F3 PAD

Well: MORGAN STATE 921-36K1CS

Wellbore: OH

Project:

Geo Datum: Map Zone:

Site:

Design: PLAN #1 PRELIMINARY

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well MORGAN STATE 921-36K1CS GL 5005 & KB 4 @ 5009.00ft (ASSUMED)

GL 5005 & KB 4 @ 5009.00ft (ASSUMED)

True

Minimum Curvature

Project UTAH - UTM (feet), NAD27, Zone 12N

Map System: Universal Transverse Mercator (US Survey Feet)

NAD 1927 (NADCON CONUS) Zone 12N (114 W to 108 W) System Datum: Mean Sea Level

Site MORGAN STATE 921-36F3 PAD, SECTION T9S R21E

Northing: 14,527,221.76 usft Site Position: Latitude: 39° 59' 36.798 N From: Lat/Long Easting: 2,059,910.07 usft Longitude: 109° 30' 8.251 W **Position Uncertainty:** 0.00 ft Slot Radius: **Grid Convergence:** 0.96 13.200 in

Well MORGAN STATE 921-36K1CS, 228 FNL 1807 FWL

 Well Position
 +N/-S
 -14.57 ft
 Northing:
 14,527,206.96 usft
 Latitude:
 39° 59′ 36.654 N

 +E/-W
 -13.73 ft
 Easting:
 2,059,896.59 usft
 Longitude:
 109° 30′ 8.428 W

Position Uncertainty 0.00 ft Wellhead Elevation: Ground Level: 5,005.00 ft

Wellbore ОН Magnetics **Model Name** Sample Date Declination Dip Angle Field Strength (nT) (°) (°) IGRF2010 2011/11/30 11.02 65.85 52,279

PLAN #1 PRELIMINARY Design Audit Notes: Version: Phase: PLAN Tie On Depth: 0.00 **Vertical Section:** Depth From (TVD) +N/-S +E/-W Direction (ft) (ft) (ft) (°) 0.00 0.00 0.00 154.55

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,300.00	20.00	154.55	1,279.82	-156.00	74.25	2.00	2.00	0.00	154.55	
2,594.11	20.00	154.55	2,495.88	-555.66	264.45	0.00	0.00	0.00	0.00	
3,594.11	0.00	0.00	3,475.70	-711.66	338.70	2.00	-2.00	0.00	180.00	
10,640.41	0.00	0.00	10,522.00	-711.66	338.70	0.00	0.00	0.00	0.00 F	BHL_MORGAN STA



SDIPlanning Report



Database: EDM5000-RobertS-Local
Company: US ROCKIES REGION P
Project: UTAH - UTM (feet), NAD2

US ROCKIES REGION PLANNING UTAH - UTM (feet), NAD27, Zone 12N MORGAN STATE 921-36F3 PAD MORGAN STATE 921-36K1CS

Wellbore: OH

Site:

Well:

Design: PLAN #1 PRELIMINARY

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well MORGAN STATE 921-36K1CS GL 5005 & KB 4 @ 5009.00ft (ASSUMED) GL 5005 & KB 4 @ 5009.00ft (ASSUMED)

True

gn:	PLAN #1 PRE	LIMINARY							
nned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2									
400.00	2.00	154.55	399.98	-1.58	0.75	1.75	2.00	2.00	0.00
500.00	4.00	154.55	499.84	-6.30	3.00	6.98	2.00	2.00	0.00
600.00	6.00	154.55	599.45	-14.17	6.74	15.69	2.00	2.00	0.00
700.00	8.00	154.55	698.70	-25.17	11.98	27.88	2.00	2.00	0.00
800.00	10.00	154.55	797.47	-39.30	18.70	43.52	2.00	2.00	0.00
900.00	12.00	154.55	895.62	-56.53	26.90	62.60	2.00	2.00	0.00
1 000 00	14.00	154.55	993.06	-76.84	36.57	85.10	2.00	2.00	0.00
1,000.00 1,100.00	14.00	154.55 154.55	993.06 1,089.64	-76.84 -100.21	36.57 47.69	85.10 110.98	2.00	2.00	0.00
1,700.00	18.00	154.55	1,185.27	-100.21 -126.61	60.26	140.21	2.00	2.00	0.00
1,300.00	20.00	154.55	1,165.27	-156.00	74.25	172.77	2.00	2.00	0.00
,	l hold at 1300.00		1,210.02	100.00	14.25	112.11	2.00	2.00	0.00
1,373.62	20.00	154.55	1,349.00	-178.74	85.07	197.95	0.00	0.00	0.00
GREENRIVE		104.00	1,040.00	170.74	03.07	197.90	0.00	0.00	0.00
1,400.00	20.00	154.55	1,373.78	-186.88	88.94	206.97	0.00	0.00	0.00
1,500.00	20.00	154.55	1,467.75	-217.77	103.64	241.17	0.00	0.00	0.00
1,600.00	20.00	154.55	1,561.72	-248.65	118.34	275.37	0.00	0.00	0.00
1,670.53	20.00	154.55	1,628.00	-270.43	128.71	299.50	0.00	0.00	0.00
BIRDSNEST									
1,700.00	20.00	154.55	1,655.69	-279.53	133.04	309.58	0.00	0.00	0.00
1,800.00	20.00	154.55	1,749.66	-310.41	147.74	343.78	0.00	0.00	0.00
1,900.00	20.00	154.55	1,843.63	-341.30	162.43	377.98	0.00	0.00	0.00
2,000.00	20.00	154.55	1,937.60	-372.18	177.13	412.18	0.00	0.00	0.00
2,100.00	20.00	154.55	2,031.57	-403.06	191.83	446.38	0.00	0.00	0.00
2,200.00	20.00	154.55	2,125.54	-433.95	206.53	480.59	0.00	0.00	0.00
2,200.49	20.00	154.55	2,126.00	-434.10	206.60	480.75	0.00	0.00	0.00
MAHOGANY		104.00	2,120.00	-434.10	200.00	400.73	0.00	0.00	0.00
2,300.00	20.00	154.55	2,219.51	-464.83	221.23	514.79	0.00	0.00	0.00
2,400.00	20.00	154.55	2,219.51	-404.63 -495.71	235.92	514.79 548.99	0.00	0.00	0.00
2,500.00	20.00	154.55	2,313.46 2,407.45	-495.71 -526.59	250.62	546.99 583.19	0.00	0.00	0.00
2,594.11	20.00	154.55	2,495.88	-555.66	264.45	615.38	0.00	0.00	0.00
Start Drop -2		.01.00	_, .00.00	220.00	201.10	3 70.00	0.00	0.00	0.00
•			_ ·				_	_	_
2,600.00	19.88	154.55	2,501.42	-557.47	265.32	617.39	2.00	-2.00	0.00
2,678.93	18.30	154.55	2,576.00	-580.78	276.41	643.20	2.00	-2.00	0.00
8 5/8"			0.500.00	#0.5.55		0.45 ==			
2,700.00	17.88	154.55	2,596.03	-586.69	279.22	649.75	2.00	-2.00	0.00
2,800.00	15.88	154.55	2,691.72	-612.91	291.70	678.79	2.00	-2.00	0.00
2,900.00	13.88	154.55	2,788.36	-636.10	302.74	704.47	2.00	-2.00	0.00
3,000.00	11.88	154.55	2,885.84	-656.23	312.32	726.76	2.00	-2.00	0.00
3,100.00	9.88	154.55	2,984.03	-673.28	320.43	745.64	2.00	-2.00	0.00
3,200.00	7.88	154.55	3,082.83	-687.22	327.07	761.08	2.00	-2.00	0.00
3,300.00	5.88	154.55	3,182.10	-698.04	332.22	773.06	2.00	-2.00	0.00
3,400.00	3.88	154.55	3,281.74	-705.72	335.88	781.57	2.00	-2.00	0.00
3,500.00	1.88	154.55	3,381.60	-710.26	338.04	786.60	2.00	-2.00	0.00
3,594.11	0.00	0.00	3,475.70	-711.66	338.70	788.15	2.00	-2.00	0.00
) hold at 3594.11		-,						
3,600.00	0.00	0.00	3,481.59	-711.66	338.70	788.15	0.00	0.00	0.00
3,700.00	0.00	0.00	3,581.59	-711.66	338.70	788.15	0.00	0.00	0.00
3,800.00	0.00	0.00	3,681.59	-711.66	338.70	788.15	0.00	0.00	0.00



SDIPlanning Report



Database: EDM5000-RobertS-Local
Company: US ROCKIES REGION PLANNING
Project: UTAH - UTM (feet), NAD27, Zone 13

UTAH - UTM (feet), NAD27, Zone 12N MORGAN STATE 921-36F3 PAD MORGAN STATE 921-36K1CS

Wellbore: OH

Site:

Well:

Design: PLAN #1 PRELIMINARY

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well MORGAN STATE 921-36K1CS GL 5005 & KB 4 @ 5009.00ft (ASSUMED) GL 5005 & KB 4 @ 5009.00ft (ASSUMED)

True

Design:	PLAN #1 PRE	LIMINART							
Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
3,900.00	0.00	0.00	3,781.59	-711.66	338.70	788.15	0.00	0.00	0.00
4,000.00	0.00	0.00	3,881.59	-711.66	338.70	788.15	0.00	0.00	0.00
4,100.00	0.00	0.00	3,981.59	-711.66	338.70	788.15	0.00	0.00	0.00
4,200.00	0.00	0.00	4,081.59	-711.66	338.70	788.15	0.00	0.00	0.00
4,300.00	0.00	0.00	4,181.59	-711.66	338.70	788.15	0.00	0.00	0.00
4,400.00	0.00	0.00	4,281.59	-711.66	338.70	788.15	0.00	0.00	0.00
4,500.00	0.00	0.00	4,381.59	-711.66	338.70	788.15	0.00	0.00	0.00
4,600.00	0.00	0.00	4,481.59	-711.66	338.70	788.15	0.00	0.00	0.00
4,698.41	0.00	0.00	4,580.00	-711.66	338.70	788.15	0.00	0.00	0.00
WASATCH 4,700.00	0.00	0.00	4,581.59	-711.66	338.70	788.15	0.00	0.00	0.00
4,800.00	0.00	0.00	4,681.59	-711.66	338.70	788.15	0.00	0.00	0.00
4,900.00	0.00	0.00	4,781.59	-711.66	338.70	788.15	0.00	0.00	0.00
5,000.00	0.00	0.00	4,881.59	-711.66	338.70	788.15	0.00	0.00	0.00
5,100.00	0.00	0.00	4,981.59	-711.66	338.70	788.15	0.00	0.00	0.00
5,200.00	0.00	0.00	5,081.59	-711.66	338.70	788.15	0.00	0.00	0.00
5,300.00	0.00	0.00	5,181.59	-711.66	338.70	788.15	0.00	0.00	0.00
5,400.00	0.00	0.00	5,281.59	-711.66	338.70	788.15	0.00	0.00	0.00
5,500.00	0.00	0.00	5,381.59	-711.66	338.70	788.15	0.00	0.00	0.00
5,600.00	0.00	0.00	5,481.59	-711.66	338.70	788.15	0.00	0.00	0.00
5,700.00	0.00	0.00	5,581.59	-711.66	338.70	788.15	0.00	0.00	0.00
5,800.00 5,900.00 6,000.00 6,100.00 6,200.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	5,681.59 5,781.59 5,881.59 5,981.59 6,081.59	-711.66 -711.66 -711.66 -711.66	338.70 338.70 338.70 338.70 338.70	788.15 788.15 788.15 788.15 788.15	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
6,300.00	0.00	0.00	6,181.59	-711.66	338.70	788.15	0.00	0.00	0.00
6,400.00	0.00	0.00	6,281.59	-711.66	338.70	788.15	0.00	0.00	0.00
6,500.00	0.00	0.00	6,381.59	-711.66	338.70	788.15	0.00	0.00	0.00
6,600.00	0.00	0.00	6,481.59	-711.66	338.70	788.15	0.00	0.00	0.00
6,700.00	0.00	0.00	6,581.59	-711.66	338.70	788.15	0.00	0.00	0.00
6,800.00	0.00	0.00	6,681.59	-711.66	338.70	788.15	0.00	0.00	0.00
6,900.00	0.00	0.00	6,781.59	-711.66	338.70	788.15	0.00	0.00	0.00
7,000.00	0.00	0.00	6,881.59	-711.66	338.70	788.15	0.00	0.00	0.00
7,100.00	0.00	0.00	6,981.59	-711.66	338.70	788.15	0.00	0.00	0.00
7,200.00	0.00	0.00	7,081.59	-711.66	338.70	788.15	0.00	0.00	0.00
7,300.00	0.00	0.00	7,181.59	-711.66	338.70	788.15	0.00	0.00	0.00
7,372.41	0.00	0.00	7,254.00	-711.66	338.70	788.15	0.00	0.00	0.00
MESAVERDE 7,400.00	0.00	0.00	7,281.59	-711.66 -711.66	338.70	788.15	0.00	0.00	0.00
7,500.00 7,600.00	0.00 0.00	0.00	7,381.59 7,481.59 7,581.59	-711.66 -711.66	338.70 338.70	788.15 788.15	0.00 0.00	0.00 0.00	0.00 0.00 0.00
7,700.00	0.00	0.00	7,561.59	-711.66	338.70	788.15	0.00	0.00	0.00
7,800.00	0.00	0.00	7,681.59	-711.66	338.70	788.15	0.00	0.00	0.00
7,900.00	0.00	0.00	7,781.59	-711.66	338.70	788.15	0.00	0.00	0.00
8,000.00	0.00	0.00	7,881.59	-711.66	338.70	788.15	0.00	0.00	0.00
8,100.00	0.00	0.00	7,981.59	-711.66	338.70	788.15	0.00	0.00	0.00
8,200.00	0.00	0.00	8,081.59	-711.66	338.70	788.15	0.00	0.00	0.00
8,300.00	0.00	0.00	8,181.59	-711.66	338.70	788.15	0.00	0.00	0.00
8,400.00	0.00	0.00	8,281.59	-711.66	338.70	788.15	0.00	0.00	0.00
8,500.00	0.00	0.00	8,381.59	-711.66	338.70	788.15	0.00	0.00	0.00
8,600.00	0.00	0.00	8,481.59	-711.66	338.70	788.15	0.00	0.00	0.00
8,700.00	0.00	0.00	8,581.59	-711.66	338.70	788.15	0.00	0.00	0.00
8,800.00	0.00	0.00	8,681.59	-711.66	338.70	788.15	0.00	0.00	0.00



SDIPlanning Report



Database: Company: Project:

Site:

EDM5000-RobertS-Local

US ROCKIES REGION PLANNING UTAH - UTM (feet), NAD27, Zone 12N MORGAN STATE 921-36F3 PAD

Well: MORGAN STATE 921-36K1CS

Wellbore: OH

Design: PLAN #1 PRELIMINARY

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well MORGAN STATE 921-36K1CS GL 5005 & KB 4 @ 5009.00ft (ASSUMED) GL 5005 & KB 4 @ 5009.00ft (ASSUMED)

True

nned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
8,900.00	0.00	0.00	8,781.59	-711.66	338.70	788.15	0.00	0.00	0.00
9,000.00	0.00	0.00	8,881.59	-711.66	338.70	788.15	0.00	0.00	0.00
9,100.00	0.00	0.00	8,981.59	-711.66	338.70	788.15	0.00	0.00	0.00
9,200.00	0.00	0.00	9,081.59	-711.66	338.70	788.15	0.00	0.00	0.00
9,300.00	0.00	0.00	9,181.59	-711.66	338.70	788.15	0.00	0.00	0.00
9,400.00	0.00	0.00	9,281.59	-711.66	338.70	788.15	0.00	0.00	0.00
9,500.00	0.00	0.00	9,381.59	-711.66	338.70	788.15	0.00	0.00	0.00
9,562.41	0.00	0.00	9,444.00	-711.66	338.70	788.15	0.00	0.00	0.00
SEGO									
9,600.00	0.00	0.00	9,481.59	-711.66	338.70	788.15	0.00	0.00	0.00
9,612.41	0.00	0.00	9,494.00	-711.66	338.70	788.15	0.00	0.00	0.00
CASTLEGAT									
9,700.00	0.00	0.00	9,581.59	-711.66	338.70	788.15	0.00	0.00	0.00
9,800.00	0.00	0.00	9,681.59	-711.66	338.70	788.15	0.00	0.00	0.00
9,900.00	0.00	0.00	9,781.59	-711.66	338.70	788.15	0.00	0.00	0.00
10,000.00	0.00	0.00	9,881.59	-711.66	338.70	788.15	0.00	0.00	0.00
10,040.41	0.00	0.00	9,922.00	-711.66	338.70	788.15	0.00	0.00	0.00
	K - BLACKHAW	_							
10,100.00	0.00	0.00	9,981.59	-711.66	338.70	788.15	0.00	0.00	0.00
10,200.00	0.00	0.00	10,081.59	-711.66	338.70	788.15	0.00	0.00	0.00
10,300.00	0.00	0.00	10,181.59	-711.66	338.70	788.15	0.00	0.00	0.00
10,400.00	0.00	0.00	10,281.59	-711.66	338.70	788.15	0.00	0.00	0.00
10,500.00	0.00	0.00	10,381.59	-711.66	338.70	788.15	0.00	0.00	0.00
10,600.00	0.00	0.00	10,481.59	-711.66	338.70	788.15	0.00	0.00	0.00
10,640.41	0.00	0.00	10,522.00	-711.66	338.70	788.15	0.00	0.00	0.00

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
BLACKHAWK_MORGAI - plan hits target cent - Circle (radius 25.00		0.00	9,922.00	-711.66	338.70	14,526,501.09	2,060,247.20	39° 59' 29.620 N	109° 30' 4.075 W
PBHL_MORGAN STATE - plan hits target cent - Circle (radius 100.0		0.00	10,522.00	-711.66	338.70	14,526,501.09	2,060,247.20	39° 59' 29.620 N	109° 30' 4.075 W

Casing Points							
	Measured Depth (ft)	Vertical Depth (ft)		Name	Casing Diameter (in)	Hole Diameter (in)	
	(1.7)	(14)		Name	(111)	(,	
	2,678.93	2,576.00	8 5/8"		8.625	11.000	

API Well Number: 43047522870000



SDIPlanning Report



Database: Company: Project: Site: EDM5000-RobertS-Local

US ROCKIES REGION PLANNING UTAH - UTM (feet), NAD27, Zone 12N MORGAN STATE 921-36F3 PAD MORGAN STATE 921-36K1CS

Well: MOR Wellbore: OH

wellbore.

Design: PLAN #1 PRELIMINARY

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well MORGAN STATE 921-36K1CS GL 5005 & KB 4 @ 5009.00ft (ASSUMED) GL 5005 & KB 4 @ 5009.00ft (ASSUMED)

True

ormations								
	Measured Depth (ft)	Vertical Depth (ft)	1	Name	Lithology	Dip (°)	Dip Direction (°)	
	1,373.62	1,349.00	GREENRIVER					
	1,670.53	1,628.00	BIRDSNEST					
	2,200.49	2,126.00	MAHOGANY					
	4,698.41	4,580.00	WASATCH					
	7,372.41	7,254.00	MESAVERDE					
	9,562.41	9,444.00	SEGO					
	9,612.41	9,494.00	CASTLEGATE					
	10,040.41	9,922.00	BLACKHAWK					

Plan Annotations				
Measured	Vertical	Local Coor	dinates	
Depth (ft)	Depth (ft)	+N/-S	+E/-W	Command
(it)	(11)	(ft)	(ft)	Comment
300.00	300.00	0.00	0.00	Start Build 2.00
1,300.00	1,279.82	-156.00	74.25	Start 1294.11 hold at 1300.00 MD
2,594.11	2,495.88	-555.66	264.45	Start Drop -2.00
3,594.11	3,475.70	-711.66	338.70	Start 7046.30 hold at 3594.11 MD
10,640.41	10,522.00	-711.66	338.70	TD at 10640.41

MORGAN STATE 921-36F4BS

 Surface:
 2266 FNL / 1820 FWL
 SENW
 Lot

 BHL:
 2071 FNL / 2144 FWL
 SENW
 Lot

MORGAN STATE 921-36K1BS

 Surface:
 2274 FNL / 1814 FWL
 SENW
 Lot

 BHL:
 2562 FSL / 2144 FWL
 NESW
 Lot

MORGAN STATE 921-36K1CS

 Surface:
 2281 FNL / 1807 FWL
 SENW
 Lot

 BHL:
 2224 FSL / 2145 FWL
 NESW
 Lot

Pad: MORGAN STATE 921-36F3 PAD

Section 36 T9S R21E Mineral Lease: ML-22265

Uintah County, Utah
Operator: Kerr-McGee Oil & Gas Onshore LP

This SUPO contains surface operating procedures for Kerr-McGee Oil & Gas Onshore LP (KMG), a wholly owned subsidiary of Anadarko Petroleum Corporation (APC) pertaining to actions that involve the State of Utah School and Institutional Trust Lands Administration (SITLA) in the development of minerals leased to APC/KMG (including but not limited to, APDs/SULAs/ROEs/ROWs and/or easements.)

See associated Utah Division of Oil, Gas, and Mining (UDOGM) Form 3(s), plats, maps, and other attachments for site-specific information on projects represented herein.

In accordance with Utah Oil & Gas Conservation Rule R649-3-11 pertaining to Directional Drilling, these wells will be directionally drilled. Refer to Topo Map A for directions to the location and Topo Maps A and B for location of access roads within a 2-mile radius.

A. Existing Roads:

Existing roads consist of county and improved/unimproved lease roads. KMG will maintain existing roads in a condition that is the same as or better than before operations began and in a safe and usable condition. Maintenance of existing roads will continue until final abandonment and reclamation of well pads and/or other facilities. The road maintenance may include, but is not limited to, blading, ditching, culvert installation/cleanout, surfacing, and dust control.

Typically, roads, gathering lines and electrical distribution lines will occupy common disturbance corridors and roadways will be used as working space. All disturbances located in the same corridor will overlap each other to the maximum extent possible; in no case will the maximum disturbance width of the access road and utility corridors exceed 50', unless otherwise approved.

B. Planned Access Roads:

No new access road is proposed. (see Topo Map B). Applicable Uintah County encroachment and/or pipeline crossing permits will be obtained prior to construction/development. No other pipelines will be crossed at this location.

If there are roads that are new or to be reconstructed, they will be located, designed, and maintained to meet the standards of SITLA and other commonly accepted Best Management Practices (BMPs). If a new road/corridor were to cross a water of the United States, KMG will adhere to the requirements of applicable Nationwide or Individual Permits of the Department of Army Corps of Engineers.

During the onsite, turnouts, major cut and fills, culverts, bridges, gates, cattle guards, low water crossings, or modifications needed to existing infrastructure/facilities were determined, as applicable, are typically shown on attached Exhibits and Topo maps.

C. Location of Existing and Proposed Facilities:

This pad will expand the existing pad for the Morgan State 1-36. The Morgan State 1-36 well location is a vertical shut-in well according to Utah Division of Oil, Gas and Mining (UDOGM) records as of December 7, 2011.

Production facilities (see Well Pad Design Summary and Facilities Diagram):

Production facilities will be installed on the disturbed portion of the well pad and may include bermed components (typically excluding dehy's and/or separators) that contain fluids (i.e. production tanks, produced liquids tanks). The berms will be constructed of compacted subsoil or corrugated metal, impervious, designed to hold 110% of the capacity of the largest tank, and be independent of the back cut. All permanent (on-site six months or longer) above ground structures constructed or installed, including pumping units, will be painted a flat, non-reflective, earth-tone color chosen at the onsite in coordination with SITLA.

Gathering Facilities:

The following pipeline transmission facilities will apply if the well is productive (see Topo D):

The total gas gathering (steel line pipe with fusion bond epoxy coating) pipeline distances from the meter to the tie in point is $\pm 1,115$ ' of buried gas pipeline and ± 445 ' of surface gas pipeline and the individual segments are broken up as foll broken up as follows:

- $\pm 230'$ (0.04 miles) –New 6" buried gas pipeline from the meter to the edge of the pad. Please refer to Topo D2 Pad and Pipeline Detail.
- $\pm 305^{\circ}$ (0.1 miles) –New 6" buried gas pipeline from the edge of the pad to the 921-36F2 intersection. Please refer to Topo D2 Pad and Pipeline Detail.
- $\pm 580'$ (0.1 miles) –New 10" buried gas pipeline from the 921-36F2 intersection to the existing buried 16" gas pipeline. Please refer to Topo D2 Pad and Pipeline Detail.
- ±445' (0.1 miles) –6" surface gas pipeline re-route. Please refer to Topo D2 Pad and Pipeline Detail.

The total liquid gathering pipeline distance from the separator to the tie in point is $\pm 1,105$ ' and the individual segments are broken up as follows:

- $\pm 230'$ (0.04 miles) –New 6" buried liquid pipeline from the separator to the edge of the pad. Please refer to Topo D2 Pad and Pipeline Detail.
- ±305' (0.1 miles) –New 6" buried liquid pipeline from the edge of the pad to the 921-36F2 intersection. Please refer to Topo D2 Pad and Pipeline Detail.
- ±570' (0.1 miles) –New 6" buried liquid pipeline from the 921-36F2 intersection to the proposed liquid pipeline ROW in progress. Please refer to Topo D2 Pad and Pipeline Detail.

The liquid gathering lines will be made of polyethylene or a composite polyethylene/steel or polyethylene/fiberglass that is not subject to internal or external pipe corrosion. The content of the produced fluids to be transferred by the liquid gathering system will be approximately 92% produced water and 8% condensate. Trunk line valve connections for the water gathering system will be below ground but accessible from the surface in order to prevent freezing during winter time.

The proposed pipelines will be buried and will include gas gathering and liquid gathering pipelines in the same trench. Where the pipeline is adjacent to the road or well pad, the road and/or well pad will be utilized for construction activities and staging. KMG requests a permanent 30' right-of-way adjacent to the road for life-of-project for maintenance, repairs, and/or upgrades, no additional right-of-way will be needed beyond the 30'. Where the pipeline is not adjacent to the road or well pad, KMG requests a temporary 45' construction right-of-way 30' permanent right-of-way.

The proposed trench width for the pipeline would range from 18-48 inches and will be excavated to a depth of 48 to 60 inches of normal soil cover or 24 inches of cover in consolidated rock. During construction blasting may occur along the proposed right-of-way where trenching equipment cannot cut into the bedrock. Large debris and rocks removed from the earth during trenching and blasting that could not be returned to the trench would be distributed evenly and naturally in the project area. The proposed pipelines will be pressure tested pneumatically (depending on size) or with fluids (either fresh or produced). If fluids are used, there will be no discharge to the surface.

Pipeline signs will be installed along the right-of-way to indicate the pipeline proximity and ownership, as well as to provide emergency contact phone numbers. Above ground valves, T's, and/or cathodic protection will be installed at various locations for connection, corrosion prevention and/or for safety purposes.

D. Location and Type of Water Supply:

Water for drilling purposes will be obtained from one of the following sources:

- Dalbo Inc.'s underground well located in Ouray, Utah, Sec. 32 T4S R3E, Water User Claim number 43-8496, application number 53617.
- Price Water Pumping Inc. Green River and White River, various sources, Water Right Number 49-1659, application number: a35745.

Water will be hauled to location over the roads marked on Maps A and B.

No water well is to be drilled on this lease.

E. Source of Construction Materials:

Construction operations will typically be completed with native materials found on location. If needed, construction materials that must be imported to the site (mineral material aggregate, soils or materials suitable for fill/surfacing) will be obtained from a nearby permitted source and described in subsequent Sundry requests. No construction materials will be removed from State lands without prior approval from SITLA.

F. Methods for Handling Waste Materials:

Should the well be productive, produced water will be contained in a water tank and will be transported by pipeline and/or truck to an approved disposal sites facilities and/or Salt Water Disposal (SWD) injection well. Currently, those facilities are:

RNI in Sec. 5 T9S R22E Ace Oilfield in Sec. 2 T6S R20E MC&MC in Sec. 12 T6S R19E Pipeline Facility in Sec. 36 T9S R20E

Goat Pasture Evaporation Pond in SW/4 Sec. 16 T10S R22E

Bonanza Evaporation Pond in Sec. 2 T10S R23E

Ouray #1 SWD in Sec. 1 T9S R21E NBU 159 SWD in Sec. 35 T9S R21E CIGE 112D SWD in Sec. 19 T9S R21E CIGE 114 SWD in Sec. 34 T9S R21E NBU 921-34K SWD in Sec. 34 T9S R21E NBU 921-33F SWD in Sec. 33 T9S R21E NBU 921-34L SWD in Sec. 34 T9S R21E

Kerr-McGee will use either a closed loop drilling system that will require one pit and one cuttings storage area to be constructed on the drilling pad or a traditional drilling operation with one pit used for drilling and completion operations. The cuttings storage area will be used to contain only the de-watered drill cuttings and will be lined and bermed to prevent any liquid runoff. The drill cuttings will be buried in the completion pit once completion operations are completed according to traditional pit closure standards. The pit will be constructed to allow for completion operations. The completion operations pit will be lined with a synthetic material 20 mil or thicker and will be used for the completing of the wells on the pad or used as part of our Aandarko Completions Transportation System (ACTS). Using the closed loop drilling system will allow Kerr-McGee to decrease the amount of disturbance/footprint on location compared to a single large drilling/completions pit.

If Kerr-McGee does not use a closed loop drilling system, it will construct a traditional drilling/completions pit to contain drill cuttings and for use in completion operations. The pit will be lined with a synthetic material 20 mil or thicker. The drill cuttings will be buried in the pit using traditional pit closure standards.

Unless otherwise approved, no oil or other oil based drill additives, chromium/metals-based, or saline muds will be used during drilling. Only fresh water, biodegradable polymer soap, bentonite clay, and /or non-toxic additives will be used in the system.

Pits will be constructed to minimize the accumulation of surface runoff. Should fluid hydrocarbons be encountered during drilling, completions, or well testing, product will either be contained in test tanks on the well site or evacuated by vacuum

trucks and transported to an approved disposal/sales facility. Should petroleum hydrocarbons unexpectedly be release into the pit, they will be removed as soon as practical but in no case will they remain longer than 72 hours unless an alternative is approved by SITLA. Should timely removal prove infeasible, the pit will be netted with mesh no larger than 1 inch until such time as the hydrocarbons can be removed. Hydrocarbon removal will also take place prior to the closure of the pit, unless authorization is provided for disposal via alternative pit closure methods. (e.g. solidification)

Any additional pits necessary for subsequent operations, such as temporary flare pits, or workover pits, will contained within the originally approved well pad and disturbance boundaries. Such temporary pits will be backfilled and reclaimed within 180 days of completion of the work.

For the protection of livestock and wildlife, all open pits and cellars will be fenced/covered to prevent wildlife or livestock entry. Total height of pit fencing will be at least 42 inches and corner posts will be cemented and/or braced in such a manner as to keep the fence tight at all times. Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance between any 2 fence posts shall be no greater than 16 feet.

Pits containing drilling cuttings, mud, and/or completions fluids will be allowed to dry. Any free fluids remaining after after six (6) months from reaching total depth, date of completion, and/or determination of inactivity will be removed (as weather conditions allow) to an approved site and the pit reclaimed. Additional drying methods may include fly-ash solidification or sprinkler evaporation. Installation and operation of any sprinklers, pumps, and equipment will ensure that water spray or mist does not drift. Reserve pit liners will be cut off or folded as near to the mud surface as possible and as safety considerations allow and buried on location.

No garbage or non-exempt substances as defined by Resource Conservation and Recovery Act (RCRA) subtitle C will be placed in the reserve pit. All refuse generated during construction, drilling, completion, and well testing activities will be contained in an enclosed receptacle, removed from the drill locations promptly, and transported to an approved disposal facility.

Portable, self-contained chemical toilets and/or sewage processing facilities will be provided for human waste disposal. Upon completion of operations, or as required, the toilet holding tanks will be pumped and the contents disposed of in an approved sewage disposal facility. All applicable regulations pertaining to disposal of human and solid waste will be observed.

Any undesirable event, including accidental release of fluids, or release in excess of reportable quantities, will be managed according to the notification requirements of UDOGMs "Reporting Oil and Gas Undesirable Events" rule. Where State wells are participatory to a Federal agreement, according to NTL-3A, the appropriate Federal agencies will be notified.

Materials Management

Hazardous materials above reportable quantities will not be produced by drilling or completing proposed wells or constructing the pipelines/facilities. The term "hazardous materials" as used here means: (1) any substance, pollutant, or containment listed as hazardous under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended 42 U.S.C. 9601 et seq., and the regulations issued under CERCLA; and (2) any hazardous waste as defined in RCRA of 1976, as amended. In addition, no extremely hazardous substance, as defined in 40 CFR 355, in threshold planning quantities, would be used, produced, stored, transported, or disposed of while producing any well.

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Morgan State 921-36F4BS/ 921-36K1BS/ 921-36K1CS

Chemicals subject to reporting under Title III of the Superfund Amendments and Reauthorization Act (SARA) in quantities of 10,000 pounds or more may be produced and/or stored at production facilities and may be kept in limited quantities on drilling sites and well locations for short periods of time during drilling or completion activities.

G. Ancillary Facilities:

None are anticipated.

H. Well Site Layout (see Well Pad Design Summary):

The location, orientation and aerial extent of each drill pad; reserve/completion/flare pit; access road ingress/ egress points, drilling rig, dikes/ditches, existing wells/infrastructure; proposed cuts and fills; and topsoil and spoil material stockpile locations are depicted on the exhibits for each project, where applicable. Site-specific conditions may require slight deviation in actual equipment and facility layout; however, the area of disturbance, as described in the survey, will not be exceeded.

Coordinates are provided in the National Spatial Reference System, North American Datum, 1927 (NAD27) or latest edition. Distances are depicted on each plat to the nearest two adjacent section lines.

I. Plans for Reclamation of the Surface:

Surface reclamation will be undertaken in two phases: interim and final. Interim reclamation is conducted following well completion and extends through the period of production. This reclamation is for the area of the well pad that is not required for production activities. Final reclamation is conducted following well plugging/conversion and/or facility abandonment processes.

Reclamation activities in both phases may include but is not limited to the re-contouring or re-configuration of topographic surfaces, restoration of drainage systems, segregation of spoils materials, minimizing surface disturbance, re-evaluating backfill requirements, pit closure, topsoil redistribution, soil treatments, seeding and weed control.

Interim Reclamation

Interim reclamation includes pit closure, re-contouring (where possible), soil bed preparation, topsoil placement, seeding, and/or weed control.

Interim re-contouring involves bringing all construction material from cuts and fills back onto the well pad and site and reestablishing the natural contours where desirable and practical. Fill and stockpiled spoils no longer necessary to the operation will be spread on the cut slopes and covered with stockpiled topsoil. All stockpiled top soils will be used for interim reclamation where practical to maintain soil viability. Where possible, the land surface will be left "rough" after re-contouring to ensure that the maximum surface area will be available to support the reestablishment of vegetative cover.

A reserve pit, upon being allowed to dry, will be backfilled and compacted with cover materials that are void of any topsoil, vegetation, large stones, rocks or foreign objects. Soils that are moisture laden, saturated, or partially/

Morgan State 921-36F4BS/ 921-36K1BS/ 921-36K1CS

completely frozen will not be used for backfill or cover. The pit area will be mounded to allow for settling and to promote positive surface drainage away from the pit.

Final Reclamation

Final reclamation will be performed for newly drilled unproductive wells and/or at the end of the life of a productive well. As soon as practical after the conclusion of drilling and testing operations, unproductive drill holes will be plugged and abandoned (P&A). Site and road reclamation will commence following plugging. In no case will reclamation at non-producing locations be initiated later than six (6) months from the date a well is plugged. A joint inspection of the disturbed area to be reclaimed may be requested by KMG. The primary purpose of this inspection will be to review the existing conditions, or agree upon a revised final reclamation and abandonment plan. A Notice of Intent to Abandon will be filed for final recommendations regarding surface reclamation.

After plugging, all wellhead equipment that is no longer needed will be removed, and the well site will be reclaimed. Final contouring will blend with and follow as closely as practical the natural terrain and contours of the original site and surrounding areas. After re-contouring, final grading will be conducted over the entire surface of the well site and access road. Where practical, the area will be ripped to a depth of 18 to 24 inches on 18 to 24-inch centers and surface materials will be pitted with small depressions to form longitudinal depressions 12 to 18 inches deep perpendicular to the natural flow of water.

All unnecessary surface equipment and structures (e.g. cattle guards) and water control structures (e.g. culverts, drainage pipes) not needed to facilitate successful reclamation will be removed during final reclamation. Roads that will be reclaimed will be ripped to a depth of 18 inches where practical, re-contoured to approximate the original contour of the ground and seeded.

Upon successfully completing reclamation of a P&A location, a Final Abandonment Notice will be submitted to UDOGM.

Seeding and Measures Common to Interim and Final Reclamation

Reclaimed areas may be fenced to exclude grazing and encourage re-vegetation.

On slopes where severe erosion can become a problem and the use of machinery is not practical, seed will be hand broadcast and raked with twice the specified amount of seed. The slope will be stabilized using materials specifically designed to prevent erosion on steep slopes and hold seed in place so vegetation can become permanently established. These materials will include, but are not limited to, erosion control blankets and bonded fiber matrix at a rate to achieve a minimum of 80 percent soil coverage.

Seeding will occur year-round as conditions allow. Seed mixes appropriate to the native plant community as determined and specified for each project location based on the site specific soils will be used for re-vegetation. The site specific seed mix will be provided by SITLA.

J. <u>Surface/Mineral Ownership</u>:

SITLA 675 East 500 South, Suite 500 Salt Lake City, UT 84102

L. Other Information:

None

Morgan State 921-36F4BS/ 921-36K1BS/ 921-36K1CS

M. Lessee's or Operators' Representative & Certification:

Danielle Piernot Regulatory Analyst II Kerr-McGee Oil & Gas Onshore LP PO Box 173779 Denver, CO 80217-3779 (720) 929-6156 Tommy Thompson General Manager, Drilling Kerr-McGee Oil & Gas Onshore LP PO Box 173779 Denver, CO 80217-3779 (720) 929-6724

Certification: All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees.

The Operator will be fully responsible for the actions of its subcontractors. A complete copy of the approved "Application for Permit to Drill" will be furnished to the field representative(s) to ensure compliance and shall be on location during all construction and drilling operations.

Kerr-McGee Oil & Gas Onshore LP is considered to be the operator of the subject well. Kerr-McGee Oil & Gas Onshore LP agrees to be responsible under terms and conditions of the lease for the operations conducted upon leased lands.

Bond coverage for State lease activities is provided by State Surety Bond 22013542, and for applicable Federal lease activities and pursuant to 43 CFR 3104, by Bureau of Land Management Nationwide Bond WYB000291.

I hereby certify that I, or persons under my supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions that currently exist; that I have full knowledge of the State and Federal laws applicable to this operation; that the statements made in this plan are, to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

Danielle Piernot

December 19, 2011

Date



Kerr-McGee Oil & Gas Onshore LP PO Box 173779 DENVER, CO 80217-3779

December 14, 2011

Ms. Diana Mason Division of Oil, Gas and Mining P.O. Box 145801 Salt Lake City, UT 84114-6100

Re: Directional Drilling R649-3-11 Morgan State 921-36K1CS

T9S-R21E

Section 36: SENW (Surface), NESW (Bottom Hole)

Surface: 2281' FNL, 1807' FWL Bottom Hole: 2224' FSL, 2145' FWL

Uintah County, Utah

Dear Ms. Mason:

Pursuant to the filing of Kerr-McGee Oil & Gas Onshore LP's (Kerr-McGee) Application for Permit to Drill regarding the above referenced well, we are hereby submitting this letter in accordance with Oil & Gas Conservation Rule R649-3-11 pertaining to Directional Drilling.

- Kerr-McGee is permitting this well as a directional well in order to minimize surface disturbance. Locating the well at the surface location and directionally drilling from this location, Kerr-McGee will be able to utilize the existing roads and pipelines in the area.
- Furthermore, Kerr-McGee certifies that it is the sole working interest owner within 460 feet of the entire directional well bore.

Therefore, based on the above stated information, Kerr-McGee Oil & Gas Onshore LP requests the permit be granted pursuant to R649-3-11.

Sincerely,

KERR-MCGEE OIL & GAS ONSHORE LP

Joe Matney Sr. Staff Landman

From: Jim Davis
To: APD APPROVAL

CC: Danielle Piernot; Julie Jacobson

Date: 2/23/2012 3:22 PM

Subject: APD Approval: the Kerr McGee Morgan State wells

The following wells have been approved by SITLA including arch and paleo clearance.

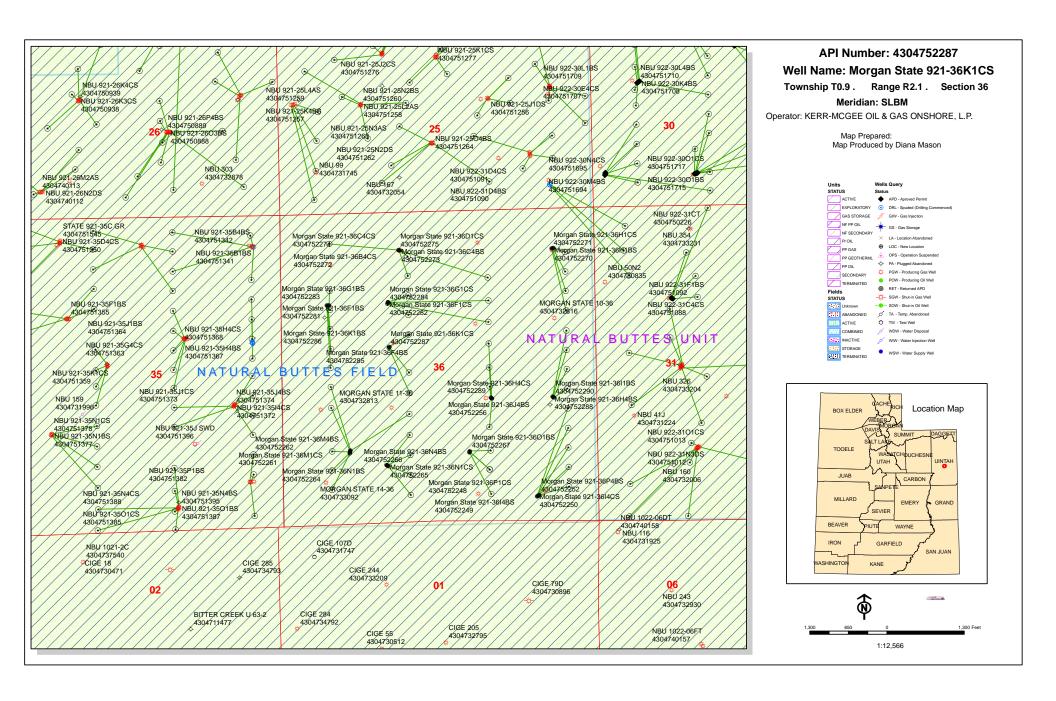
```
Morgan State 921-36G4BS
4304752246
             Morgan State 921-36G4CS
4304752253
4304752255
             Morgan State 921-36J1CS
4304752256
             Morgan State 921-36J4BS
             Morgan State 921-36F1BS
4304752281
4304752282
             Morgan State 921-36F1CS
4304752283
             Morgan State 921-36G1BS
4304752284
             Morgan State 921-36G1CS
             Morgan State 921-36F4BS
4304752285
4304752286
             Morgan State 921-36K1BS
4304752287
             Morgan State 921-36K1CS
             Morgan State 921-36P1BS
4304752247
             Morgan State 921-36P1CS
4304752248
             Morgan State 921-36I4BS
4304752249
             Morgan State 921-36I4CS
4304752250
             Morgan State 921-36P4BS
4304752252
4304752263
             Morgan State 921-36K4CS
4304752264
             Morgan State 921-36N1BS
4304752265
             Morgan State 921-36N1CS
4304752266
             Morgan State 921-36N4BS
4304752276
             Morgan State 921-36D4CS
4304752277
             Morgan State 921-36E1BS
4304752278
             Morgan State 921-36E1CS
             Morgan State 921-36E4BS
4304752279
4304752280
             Morgan State 921-36E4CS
             Morgan State 921-36O4CS
4304752245
             Morgan State 921-36O1CS
4304752254
             Morgan State 921-36O1BS
4304752267
4304752257
             Morgan State 921-36K4BS
4304752258
             Morgan State 921-36L1BS
4304752259
             Morgan State 921-36L1CS
4304752260
             Morgan State 921-36M1BS
4304752261
             Morgan State 921-36M1CS
4304752262
             Morgan State 921-36M4BS
4304752272
             Morgan State 921-36B4CS
4304752273
             Morgan State 921-36C4BS
4304752274
             Morgan State 921-36C4CS
4304752275
             Morgan State 921-36D1CS
```

There are eight more wells on two pads in this section, the 36A pad and the 36I pad, that have not yet been approved. Anadarko is gathering reclamation cost figures on pads similar to those as part of the process of acquiring adequate SITLA bonds.

-Jim

Jim Davis Utah Trust Lands Administration jimdavis1@utah.gov

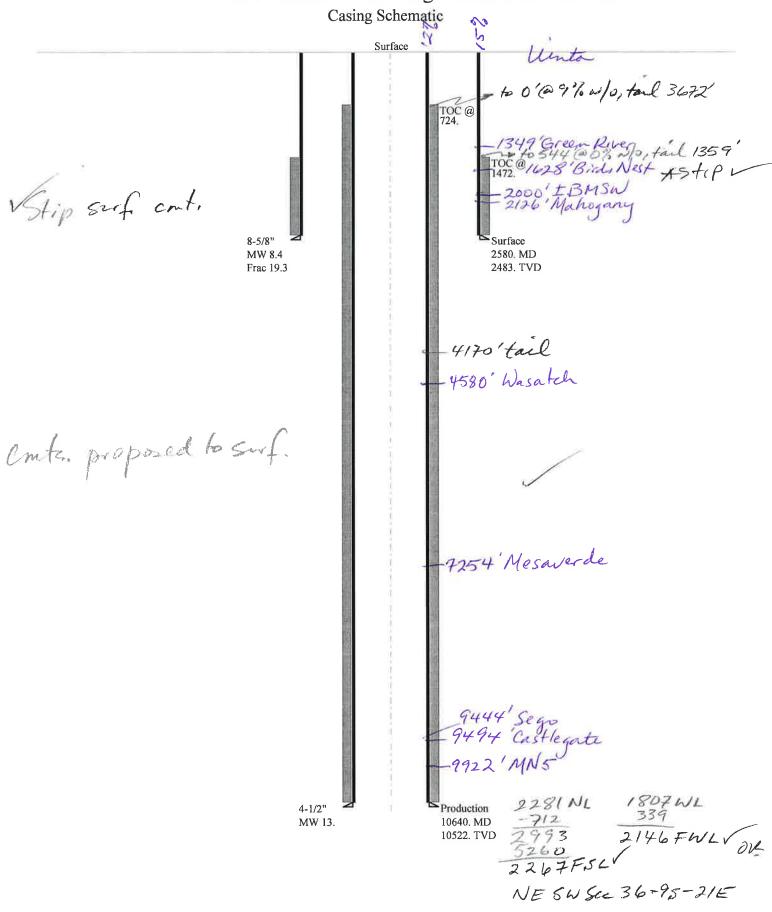
Phone: (801) 538-5156



BOPE REVIEW KERR-MCGEE OIL & GAS ONSHORE, L.P. Morgan State 921-36K1CS 43047522870000

Well Name		KERR-MCGEE C	IL & GAS ONSHO	RE, L.	P. Morgan S	State 92	21-36K1C	<u> </u>	
String		Surf	Prod					<u>-</u>	
Casing Size(")		8.625	4.500	匸				ī	
Setting Depth (TVD)		2483	10522					ī	
Previous Shoe Setting Dept	h (TVD)	0	2483					i i	
Max Mud Weight (ppg)		8.4	13.0					i i	
BOPE Proposed (psi)		500	5000					<u> </u>	
Casing Internal Yield (psi)		3390	10690	F				<u>-</u>	
Operators Max Anticipated	Pressure (psi)	6945	12.7					<u>-</u>	
Calculations		Court Court					8.625	"	
Max BHP (psi)		Surf Stri	52*Setting D)enth	*MW-		0.025		
Max DIII (psi)			52 Setting E	Сри	111 11	1085		BOPE Adea	uate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)		Max BH	P-(0.12*Setti	ing D	epth)=	787			air drill
MASP (Gas/Mud) (psi)		Max BH	P-(0.22*Setti	ing D	1.	539			Reasonable depth in area
(, , ,					11.7	559			xpected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP22*(S	etting Depth -	- Previous Sh	oe D	epth)=	539		NO I	1
Required Casing/BOPE Tes	st Pressure=					2373		psi	
*Max Pressure Allowed @ 1	Previous Casing S	Shoe=				0		psi *Assu	mes 1psi/ft frac gradient
	_					1.0			
Calculations		Prod Stri					4.500	"	
Max BHP (psi)		.0	52*Setting D	epth	*MW=	7113			
MASD (C) (i)		M DII	D (0.12*C-44	T	No. 114 (In N				uate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)			5850		NO			
MASP (Gas/Mud) (psi)		Max BH	P-(0.22*Setti	ing L	epth)=	4798		<u> </u>	OK SI SI SI
Pressure At Previous Shoe	May BHD 22*(S	atting Danth	Dravious Sh	100 F	anth)-				xpected Pressure Be Held At Previous Shoe?
Required Casing/BOPE Tes		ctting Depth	- Trevious Si	100 1	reptii)=	5344	_	psi	Reasonable
*Max Pressure Allowed @ 1		Shoo-				5000	_		mes 1psi/ft frac gradient
Max 11csaire Allowed @ 1	Trevious Casing i	5H0C=				2483		p31 7133u	mes 1psi/it irae gradient
Calculations		String						"	
Max BHP (psi)		.0	52*Setting D	epth	*MW=				
								BOPE Adeq	uate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)			P-(0.12*Setti		-			NO	
MASP (Gas/Mud) (psi)		Max BH	P-(0.22*Setti	ing D	epth)=			NO	
Duranes AA Durantana Char	M DIID 22*/C	- Min - Donah	D C1		No. 11 (11 N				xpected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	·	etting Deptn -	- Previous Sn	ioe L	eptn)=	_		NO	
Required Casing/BOPE Tes		a.						psi	1 112 2
*Max Pressure Allowed @ 1	Previous Casing S	Shoe=						psi *Assu	mes 1psi/ft frac gradient
Calculations		String						"	
Max BHP (psi)		.0	52*Setting D	epth	*MW=				
								BOPE Adeq	uate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)		Max BH	P-(0.12*Setti	ng D	epth)=			NO	
MASP (Gas/Mud) (psi)		Max BH	P-(0.22*Setti	ng D	epth)=			NO	
								*Can Full E	xpected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	<u> </u>	etting Depth -	- Previous Sh	oe D	epth)=			NO	
Required Casing/BOPE Tes								psi	
*Max Pressure Allowed @ 1	Previous Casing S	Shoe=					í	psi *Assu	mes 1psi/ft frac gradient

43047522870000 Morgan State 921-36K1CS



Well name: 43047522870000 Morgan State 921-36K1CS

Operator: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Operator: KERK-INICGEE OIL & GAS ONSHORE, L.F

String type: Surface Project ID: 43-047-52287

Location: UINTAH COUNTY

Design parameters: Minimum design factors: Environment: H2S considered? Collapse Collapse: No 74 °F Design factor 1.125 Surface temperature: Mud weight: 8,400 ppg 109 °F Design is based on evacuated pipe. Bottom hole temperature: Temperature gradient: 1.40 °F/100ft Minimum section length: 100 ft **Burst:** Design factor 1.00 Cement top: 1,472 ft **Burst** Max anticipated surface pressure: 2,236 psi Internal gradient: 0.120 psi/ft Tension: Directional Info - Build & Drop Calculated BHP 2,533 psi 8 Round STC: 1.80 (J) Kick-off point 300 ft 8 Round LTC: 1.70 (J) Departure at shoe: 611 ft 1.60 (J) No backup mud specified. Buttress: Maximum dogleg: 2 °/100ft 20° Premium: 1.50 (J) Inclination at shoe: 1.50 (B) Re subsequent strings: Body yield: Next setting depth: 10,522 ft Tension is based on air weight. Next mud weight: 13.000 ppg Next setting BHP: Neutral point: 2,253 ft 7,105 psi Fracture mud wt: 19.250 ppg Fracture depth: 2,540 ft Injection pressure: 2,540 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
1	2580	8.625	28.00	I-55	LT&C	2483	2580	7.892	102168
Run Seq	Collapse Load (psi) 1083	Collapse Strength (psi) 1880	Collapse Design Factor 1.735	Burst Load (psi) 2533	Burst Strength (psi) 3390	Burst Design Factor 1.34	Tension Load (kips) 69.5	Tension Strength (kips) 348	Tension Design Factor 5.01 J

Prepared Helen Sadik-Macdonald by: Div of Oil, Gas & Mining

Phone: 801 538-5357 FAX: 801-359-3940 Date: March 6,2012 Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 2483 ft, a mud weight of 8.4 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

43047522870000 Morgan State 921-36K1CS Well name:

KERR-MCGEE OIL & GAS ONSHORE, L.P. Operator:

String type: Production Project ID: 43-047-52287

UINTAH COUNTY Location:

Environment: Minimum design factors: Design parameters:

H2S considered? Collapse Collapse: Nο 74 °F Surface temperature: Mud weight: 13.000 ppg Design factor 1.125 Bottom hole temperature: 221 °F Design is based on evacuated pipe.

Temperature gradient: 1.40 °F/100ft Minimum section length: 100 ft

Burst: 724 ft Design factor 1.00 Cement top:

Burst

Max anticipated surface

4,791 psi pressure: Internal gradient: 0.220 psi/ft Tension:

Kick-off point 300 ft Calculated BHP 7,105 psi 8 Round STC: 1.80 (J) 8 Round LTC: 1.80 (J) Departure at shoe: 788 ft 2 °/100ft 1.60 (J) Maximum dogleg: No backup mud specified. Buttress: Inclination at shoe: 0 ° 1.50 (J) Premium: 1.60 (B)

Body yield: Tension is based on air weight.

Neutral point: 8,595 ft

Estimated cost: 159,174 (\$)

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
2	5ÒOO	4.5	11.60	HCP-110	DQX	4882	5000	3.875	132000
1	5640	4.5	11.60	HCP-110	LT&C	10522	10640	3.875	27174
Run	Collapse	Collapse	Collapse	Burst	Burst	Burst	Tension	Tension	Tension
Seq	Load (psi)	Strength (psi)	Design Factor	Load (psi)	Strength (psi)	Design Factor	Load (kips)	Strength (kips)	Design Factor
2	3297	8120	2.463	5865	10690	1.82	122.1	367.2	3.01 B
1	7105	8650	1.217	7105	10690	1.50	65.4	279	4.26 J

Prepared Helen Sadik-Macdonald Div of Oil, Gas & Mining

Phone: 801 538-5357 FAX: 801-359-3940

Date: March 6,2012 Salt Lake City, Utah

Directional Info - Build & Drop

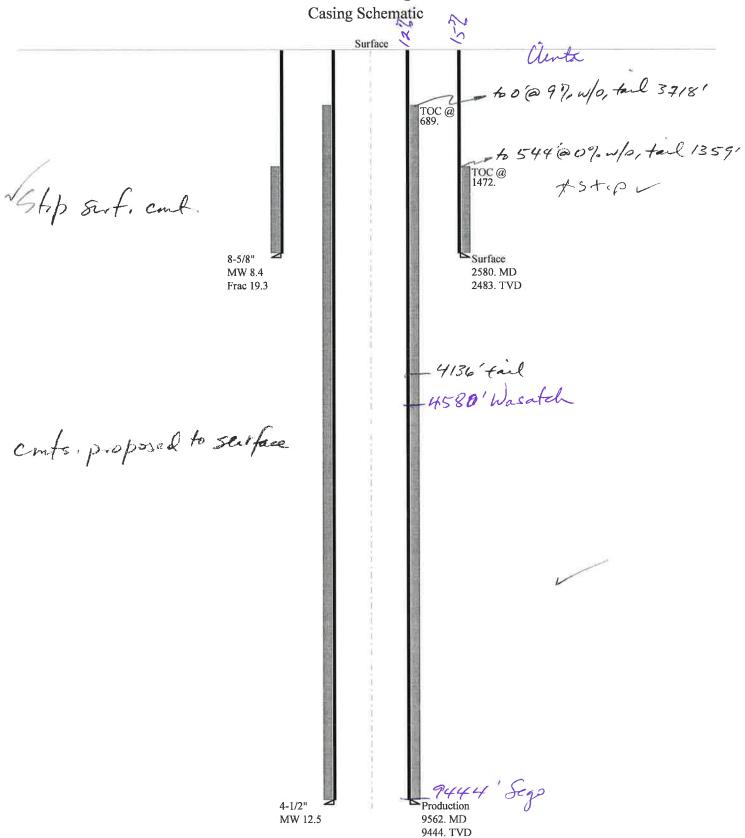
Remarks:

Collapse is based on a vertical depth of 10522 ft, a mud weight of 13 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

43047522870000 Morgan State 921-36K1CS



43047522870000 Morgan State 921-36K1CS Well name:

KERR-MCGEE OIL & GAS ONSHORE, L.P. Operator:

Surface

Project ID: String type: 43-047-52287

UINTAH COUNTY Location:

Design parameters: Minimum design factors: **Environment:**

Tension:

H2S considered? Collapse Collapse: No 74 °F 8.400 ppg Design factor Surface temperature: Mud weight: 1.125 109 °F Design is based on evacuated pipe. Bottom hole temperature:

1.40 °F/100ft Temperature gradient:

Minimum section length: 100 ft **Burst:**

1,80 (J)

Design factor 1.00 Cement top: 1,472 ft

Burst Max anticipated surface

> pressure: 2,236 psi Internal gradient: 0.120 psi/ft

Calculated BHP 2,533 psi 8 Round STC: 8 Round LTC:

1.70 (J) 1.60 (J) No backup mud specified. Buttress: Premium: 1.50 (J) Body yield:

Tension is based on air weight.

Directional Info - Build & Drop Kick-off point 300 ft

Departure at shoe: 611 ft Maximum dogleg: 2 °/100ft 20° Inclination at shoe:

1.50 (B) Re subsequent strings:

Next setting depth: 9,444 ft Next mud weight: 12.500 ppg Next setting BHP: Neutral point: 2,253 ft 6,132 psi Fracture mud wt: 19.250 ppg Fracture depth: 2,540 ft

Injection pressure: 2,540 psi

Run	Segment		Nominal		End	True Vert	Measured	Drift	Est.
Seq	Length (ft)	Size (in)	Weight (lbs/ft)	Grade	Finish	Depth (ft)	Depth (ft)	Diameter (in)	Cost (\$)
1	2580	8.625	28.00	1-55	LT&C	2483	2580	7.892	102168
Run	Collapse	Collapse	Collapse	Burst	Burst	Burst	Tension	Tension	Tension
Seq	Load	Strength	Design	Load	Strength	Design	Load	Strength	Design
	(psi)	(psi)	Factor	(psi)	(psi)	Factor	(kips)	(kips)	Factor

Prepared by:

Helen Sadik-Macdonald

Div of Oil, Gas & Mining

Phone: 801 538-5357 FAX: 801-359-3940

Date: March 6,2012 Salt Lake City, Utah

Collapse is based on a vertical depth of 2483 ft, a mud weight of 8.4 ppg The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

Well name:

43047522870000 Morgan State 921-36K1CS

Operator:

KERR-MCGEE OIL & GAS ONSHORE, L.P.

String type:

Production

Project ID:

Location:

UINTAH

43-047-52287

COUNTY

Design parameters: Collapse

Mud weight:

12.500 ppg Internal fluid density: 1.000 ppg Minimum design factors:

Collapse:

1.125 Design factor

Environment:

H2S considered? No 74 °F Surface temperature: Bottom hole temperature: 206 °F

Temperature gradient: 1.40 °F/100ft Minimum section length: 100 ft

Burst:

Design factor 1.00 Cement top:

689 ft

Burst

Max anticipated surface

pressure: 4,055 psi Internal gradient: 0.220 psi/ft Calculated BHP 6,132 psi

No backup mud specified.

Tension:

8 Round STC: 1.80 (J) 8 Round LTC: 1.80 (J) Buttress: 1.60 (J) 1.50 (J) Premium:

Body yield:

Tension is based on air weight. Neutral point: 7,797 ft

Estimated cost:

192,218 (\$)

1.60 (B)

Directional Info - Build & Drop

Kick-off point 300 ft Departure at shoe: 788 ft 2 °/100ft Maximum dogleg:

Inclination at shoe: o°

Run	Segment		Nominal		End	True Vert	Measured	Drift	Est.
Seq	Length	Size	Weight	Grade	Finish	Depth	Depth	Diameter	Cost
•	(ft)	(in)	(lbs/ft)			(ft)	(ft)	(in)	(\$)
2	5000	4.5	11.60	1-80	DQX	4882	5000	3.875	132000
1	4562	4.5	11.60	1-80	LT&C	9444	9562	3.875	60218
Run	Collapse	Collapse	Collapse	Burst	Burst	Burst	Tension	Tension	Tension
Seq	Load	Strength	Design	Load	Strength	Design	Load	Strength	Design
-	(psi)	(psi)	Factor	(psi)	(psi)	Factor	(kips)	(kips)	Factor
2	2916	5905	2.025	5129	7780	1.52	109.5	267	2.44 J
1	5642	6360	1.127	6132	7780	1.27	52.9	212	4.01 J

Prepared

Helen Sadik-Macdonald

Div of Oil, Gas & Mining

Phone: 801 538-5357

FAX: 801-359-3940

Date: March 6,2012 Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 9444 ft, a mud weight of 12.5 ppg. An internal gradient of .052 psi/ft was used for collapse from TD Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

ON-SITE PREDRILL EVALUATION

Utah Division of Oil, Gas and Mining

Operator KERR-MCGEE OIL & GAS ONSHORE, L.P.

Well Name Morgan State 921-36K1CS

API Number 43047522870000 APD No 5075 Field/Unit NATURAL BUTTES

Location: 1/4,1/4 SENW Sec 36 Tw 9.0S Rng 21.0E 2281 FNL 1807 FWL

GPS Coord (UTM) Surface Owner

Participants

D. Piernot, S. Wopsock, C. Chase, D. Holmes, K Gathings, - Anadarko; C.Jensen, D. Hackford – DOGM; M.Batty, J. Slaugh – Timberline; A. Hansen- DWR

Regional/Local Setting & Topography

This location is within the Natural Buttes Unit but is not part of the Natural Buttes Unit. It is approximately 14 road miles southeast of Ouray, Utah. The general area is at the head of a long unnamed wash east of Cottonwood Wash. Both washes enter the White River in the same general area, approximately six miles to the north. The area is characterized by rolling hills, which are frequently divided by somewhat gentle draws that drain northerly. This unnamed wash is an ephemeral drainage. No springs, seeps or streams exist in the area. The washes are sometimes rimmed with steep side hills, which have exposed sandstone bedrock cliffs along the rims.

Three new directional wells will be drilled from this location which currently has one well, the Morgan State 1-36. The decision to PA or TA this existing well hasn't been made at this time.

Surface Use Plan

Current Surface Use

Existing Well Pad

New Road Miles Well Pad Src Const Material Surface Formation

Width 120 Length 260 Onsite UNTA

Ancillary Facilities N

Waste Management Plan Adequate? Y

Environmental Parameters

Affected Floodplains and/or Wetlands N

Flora / Fauna

dominant vegetation;

Galletta, shadscale and rabbit brush surround the well pad.

Disturbed soils are not habitat for wildlife.

DWR had no comment / issues

Soil Type and Characteristics

very flaggy loams Motto-casmos complex.

Erosion Issues Y

3/20/2012 Page 1

soil is very erodible and some slopes nearby are very steep

Sedimentation Issues Y

sediment / pollution transport is likely under heavy precipitation events

Site Stability Issues N

Drainage Diverson Required? Y

stockpiling will be sufficient

Berm Required? Y

Erosion Sedimentation Control Required? Y

location to be bermed. Plans call for stockpiling to act as a buffer to the wash

Paleo Survey Run? Paleo Potental Observed? N Cultural Survey Run? Cultural Resources? N

Reserve Pit

Site-Specific Factors	Site Ran	king	
Distance to Groundwater (feet)	100 to 200	5	
Distance to Surface Water (feet)		20	
Dist. Nearest Municipal Well (ft)	>5280	0	
Distance to Other Wells (feet)	>1320	0	
Native Soil Type	Mod permeability	10	
Fluid Type	Fresh Water	5	
Drill Cuttings	Normal Rock	0	
Annual Precipitation (inches)	10 to 20	5	
Affected Populations			
Presence Nearby Utility Conduits	Unknown	10	
	Final Score	5 5	1 Sensitivity Level

Characteristics / Requirements

pit to be constructed to a depth of 12' soils at location are very flaggy and can puncture lining

Closed Loop Mud Required? N Liner Required? Y Liner Thickness 16 Pit Underlayment Required? Y

Other Observations / Comments

Evaluator	Date / Time
Chris Jensen	1/11/2012

3/20/2012 Page 2

Application for Permit to Drill Statement of Basis

3/20/2012 Utah Division of Oil, Gas and Mining

Page 1

APD NoAPI WellNoStatusWell TypeSurf Owner CBM507543047522870000SITLAGWSNo

Operator KERR-MCGEE OIL & GAS ONSHORE, L.P. Surface Owner-APD

Well Name Morgan State 921-36K1CS Unit

Field NATURAL BUTTES Type of Work DRILL

Location SENW 36 9S 21E S 2281 FNL 1807 FWL GPS Coord

(UTM) 627800E 4428108N

Geologic Statement of Basis

Kerr McGee proposes to set 2,580' of surface casing at this location. The depth to the base of the moderately saline water at this location is estimated to be at a depth of 2,000'. A search of Division of Water Rights records shows one water well within a 10,000 foot radius of the center of Section 36. The well is listed as 2,640 feet deep and used for drilling water. The surface formation at this site is the Uinta Formation. The Uinta Formation is made up of interbedded shales and sandstones. The sandstones are mostly lenticular and discontinuous and should not be a significant source of useable ground water. The proposed casing and cement should adequately protect. Any usable ground water.

Brad Hill **APD Evaluator**

2/1/2012 **Date / Time**

Surface Statement of Basis

Location is an existing well pad in the Morgan State unit which is within the Natural Buttes unit in southern Uintah County. There are deep drainages close to the the proposed activities which are eventual tributaries to the white river. Because the soil is erodible and any spills may readily reach the dry wash, pad is to be bermed and stockpiles act as a buffer for these hydrologic features. Due to the rock within the soils and likely hood of disturbance to sandstone bedrock, the pit is to be underlined to prevent puncture. The operators representative was present and an integral part of this decision.

Chris Jensen
Onsite Evaluator

1/11/2012 **Date / Time**

Conditions of Approval / Application for Permit to Drill

Category Condition

Pits A synthetic liner with a minimum thickness of 16 mils with a felt subliner shall be properly installed

and maintained in the reserve pit.

Surface The well site shall be bermed to prevent fluids from leaving the pad.

Surface Drainages adjacent to the proposed pad shall be diverted around the location.

Surface The reserve pit shall be fenced upon completion of drilling operations.

RECEIVED: March 20, 2012

WORKSHEET APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 12/19/2011 API NO. ASSIGNED: 43047522870000

WELL NAME: Morgan State 921-36K1CS

OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P. (N2995) PHONE NUMBER: 720 929-6156

CONTACT: Danielle Piernot

PROPOSED LOCATION: SENW 36 090S 210E Permit Tech Review:

> **SURFACE**: 2281 FNL 1807 FWL Engineering Review:

> **BOTTOM: 2224 FSL 2145 FWL Geology Review:**

COUNTY: UINTAH

LATITUDE: 39.99349 LONGITUDE: -109.50297 UTM SURF EASTINGS: 627800.00 NORTHINGS: 4428108.00

FIELD NAME: NATURAL BUTTES

LEASE TYPE: 3 - State

LEASE NUMBER: ML 22265 PROPOSED PRODUCING FORMATION(S): BLACKHAWK

SURFACE OWNER: 3 - State **COALBED METHANE: NO**

RECEIVED AND/OR REVIEWED: LOCATION AND SITING:

✓ PLAT R649-2-3.

Bond: STATE/FEE - 22013542 Unit:

Potash R649-3-2. General

Oil Shale 190-5

Oil Shale 190-3 R649-3-3. Exception

Drilling Unit Oil Shale 190-13

Board Cause No: Cause 173-24 Water Permit: 43-8496

Effective Date: 10/5/2009 **RDCC Review:**

Siting: 460' Fr Exterior Lease Boundary Fee Surface Agreement

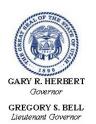
✓ Intent to Commingle R649-3-11. Directional Drill

Commingling Approved

Comments: Presite Completed

Stipulations:

3 - Commingling - ddoucet 5 - Statement of Basis - bhill 15 - Directional - dmason 17 - Oil Shale 190-5(b) - dmason 25 - Surface Casing - hmacdonald



State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

Permit To Drill

Well Name: Morgan State 921-36K1CS

API Well Number: 43047522870000

Lease Number: ML 22265 Surface Owner: STATE Approval Date: 3/20/2012

Issued to:

KERR-MCGEE OIL & GAS ONSHORE, L.P., P.O. Box 173779, Denver, CO 80217

Authority:

Pursuant to Utah Code Ann. 40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of Cause 173-24. The expected producing formation or pool is the BLACKHAWK Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

Duration:

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

Commingle:

In accordance with Board Cause No. 173-24, commingling of the production from the Wasatch formation and the Mesaverde formation in this well is allowed.

General:

Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

Conditions of Approval:

Compliance with the Conditions of Approval/Application for Permit to Drill outlined in the Statement of Basis (copy attached).

In accordance with Utah Admin. R.649-3-11, Directional Drilling, the operator shall submit a complete angular deviation and directional survey report to the Division within 30 days following completion of the well.

In accordance with the Order in Cause No. 190-5(b) dated October 28, 1982, the operator shall comply with the requirements of Rules R649-3-31 and R649-3-27 pertaining to Designated Oil Shale Areas. Additionally, the operators shall ensure that the surface and or production casing is properly cemented over the entire oil

shale section as defined by Rule R649-3-31. The Operator shall report the actual depth the oil shale is encountered to the division.

Surface casing shall be cemented to the surface.

Additional Approvals:

The operator is required to obtain approval from the Division of Oil, Gas and mining before performing any of the following actions during the drilling of this well:

- Any changes to the approved drilling plan contact Dustin Doucet
- Significant plug back of the well contact Dustin Doucet
- Plug and abandonment of the well contact Dustin Doucet

Notification Requirements:

The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

• Within 24 hours following the spudding of the well - contact Carol Daniels OR

submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website

at http://oilgas.ogm.utah.gov

- 24 hours prior to testing blowout prevention equipment contact Dan Jarvis
- 24 hours prior to cementing or testing casing contact Dan Jarvis
- Within 24 hours of making any emergency changes to the approved drilling program
 - contact Dustin Doucet
- 24 hours prior to commencing operations to plug and abandon the well contact Dan Jarvis

Contact Information:

The following are Division of Oil, Gas and Mining contacts and their telephone numbers (please leave a voicemail message if the person is not available to take the call):

- Carol Daniels 801-538-5284 office
- Dustin Doucet 801-538-5281 office

801-733-0983 - after office hours

• Dan Jarvis 801-538-5338 - office

801-231-8956 - after office hours

Reporting Requirements:

All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with the Division of Oil, Gas and Mining, including but not limited to:

- Entity Action Form (Form 6) due within 5 days of spudding the well
- Monthly Status Report (Form 9) due by 5th day of the following calendar month
 - Requests to Change Plans (Form 9) due prior to implementation
 - Written Notice of Emergency Changes (Form 9) due within 5 days
- Notice of Operations Suspension or Resumption (Form 9) due prior to implementation
 - Report of Water Encountered (Form 7) due within 30 days after completion
 - Well Completion Report (Form 8) due within 30 days after completion or

Approved By:

For John Rogers Associate Director, Oil & Gas

BLM - Vernal Field Office - Notification Form

Oper	rator KERR-McGEE OIL & GA	<u>S</u> Rig Name/# <u>BU</u>	CKET RIG
Subr	nitted By JAIME SCHARNOWSKE	Phone Number 72	0.929.6304
Well	Name/Number MORGAN ST	ATE 921-36K1CS	
_	Qtr <u>SENW</u> Section 36	Township 98	Range 21E
Leas	e Serial Number ML 22265		
API I	Number <u>4304752287</u>		
	<u>d Notice</u> – Spud is the initial pelow a casing string.	spudding of the w	vell, not drilling
	Date/Time <u>04/17/2012</u>	08:00 HRS AM	PM 🗌
<u>Casir</u>	<u>ng</u> – Please report time casi s.	ng run starts, not	cementing
$\overline{\mathbf{V}}$	Surface Casing	F	RECEIVED
	Intermediate Casing		APR 1 7 2012
	Production Casing		
	Liner	DIV. (OF OIL, GAS & MINING
	Other		
	Date/Time <u>05/02/2012</u>	08:00 HRS AM] PM [
BOP	E		
	= Initial BOPE test at surface	casing point	
	BOPE test at intermediate	<u> </u>	
	30 day BOPE test		
	Other		
	Date/Time	AM [_	PM [
Rem	arks estimated date and time. Plea	SE CONTACT KENNY GATHING	S AT
435.82	8.0986 OR LOVEL YOUNG AT 435.781.705	51	

Sundry Number: 24952 API Well Number: 43047522870000

	STATE OF UTAH		FORM 9			
ι	DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	3	5.LEASE DESIGNATION AND SERIAL NUMBER: ML 22265			
SUNDR	Y NOTICES AND REPORTS ON	WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:			
	posals to drill new wells, significantly dee reenter plugged wells, or to drill horizontal n for such proposals.		7.UNIT or CA AGREEMENT NAME:			
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: Morgan State 921-36K1CS			
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	ISHORE, L.P.		9. API NUMBER: 43047522870000			
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th	PHo n Street, Suite 600, Denver, CO, 80217 37	ONE NUMBER: 720 929-6	9. FIELD and POOL or WILDCAT: 0-65NATUERAL BUTTES			
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2281 FNL 1807 FWL			COUNTY: UINTAH			
QTR/QTR, SECTION, TOWNSH	<mark>IIP, RANGE, MERIDIAN:</mark> 86 Township: 09.0S Range: 21.0E Meridian:	S	STATE: UTAH			
11. CHECI	K APPROPRIATE BOXES TO INDICATE N	IATURE OF NOTICE, REPOR	T, OR OTHER DATA			
TYPE OF SUBMISSION		TYPE OF ACTION				
	ACIDIZE	ALTER CASING	CASING REPAIR			
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME			
	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE			
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	NEW CONSTRUCTION			
	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK			
✓ SPUD REPORT	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION			
Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON			
4/17/2012	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL			
DRILLING REPORT						
Report Date:	☐ WATER SHUTOFF ☐	SI TA STATUS EXTENSION	APD EXTENSION			
	WILDCAT WELL DETERMINATION	OTHER	OTHER:			
MIRU TRIPPLE A B	COMPLETED OPERATIONS. Clearly show all pound of the COND CMT W/28 SX READY MIX. SPU	UCTOR HOLE TO 40'. JD WELL ON 04/17/20	RAN 14" 36.7# SCHEDULE 10			
NAME (PLEASE PRINT) Sheila Wopsock	PHONE NUMBER 435 781-7024	TITLE Regulatory Analyst				
SIGNATURE N/A		DATE 4/19/2012				

STATE OF UTAH **DEPARTMENT OF NATURAL RESOURCES**

DIVISION OF OIL, GAS AND MINING

ENTITY ACTION FORM

Operator:

KERR McGEE OIL & GAS ONSHORE LP

Operator Account Number: N 2995

Address:

1368 SOUTH 1200 EAST

city VERNAL

zip 84078 state UT

Phone Number: (435) 781-7024

Well 1

API Number	Well	Name	me QQ Sec Twp			Rng	County
4304752287	MORGAN STATE 92	21-36K1CS	SENW	SENW 36 9S		21E	UINTAH
Action Code	Current Entity Number	New Entity Number	s	Spud Date		Entity Assignment Effective Date	
Ĥ	99999	10466	4/17/2012		412412012		

MIRU TRIPPLE A BUCKET RIG.

SPUD WELL ON 04/17/2012 AT 1430 HRS.

MURD

MURD

Well 2

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304752286	MORGAN STATE 92	21-36K1BS	SENW	SENW 36 9S		21E UINTAH	
Action Code	Current Entity Number	New Entity Number	s	Spud Date		Entity Assignment Effective Date	
A	99999	18487	4	4/17/2012		413413613	
	J TRIPPLE A BUCKET D WELL ON 04/17/2012	2 AT 4420 LIDE	OO.				

Well 3

API Number	Well	Name	QQ	QQ Sec Twp SENW 36 9S		Rng County 21E UINTAH	
4304752285	MORGAN STATE 92	1-36F4BS	SENW				
Action Code	Current Entity Number	New Entity Number	Spud Date		Entity Assignment Effective Date		
A	99999	16469	4	4/17/2012		.41	2410012
	U TRIPPLE A BUCKET I ID WELL ON 04/17/2012		v	YVR	0		

ACTION CODES:

(5/2000)

- A Establish new entity for new well (single well only)
- B Add new well to existing entity (group or unit well)
- C Re-assign well from one existing entity to another existing entity
- D Re-assign well from one existing entity to a new entity
- E Other (Explain in 'comments' section)

RECEIVED

APR 2 3 2012

Div. of Oil, Gas & Mining

SHEILA_WOPSOCK

Name (Please Print)

Signature

REGULATORY ANALYST Title

4/19/2012

Date

Sundry Number: 25991 API Well Number: 43047522870000

	STATE OF UTAH		FORM 9
1	DEPARTMENT OF NATURAL RESOURCE DIVISION OF OIL, GAS, AND MIN		5.LEASE DESIGNATION AND SERIAL NUMBER: ML 22265
SUNDR	RY NOTICES AND REPORTS (ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
	pposals to drill new wells, significantly or reenter plugged wells, or to drill horizor n for such proposals.		7.UNIT or CA AGREEMENT NAME:
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: Morgan State 921-36K1CS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	NSHORE, L.P.		9. API NUMBER: 43047522870000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18tl	h Street, Suite 600, Denver, CO, 80217	PHONE NUMBER: 3779 720 929-0	9. FIELD and POOL or WILDCAT: 5MATURAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2281 FNL 1807 FWL			COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSH	HIP, RANGE, MERIDIAN: 36 Township: 09.0S Range: 21.0E Merid	ian: S	STATE: UTAH
11. CHEC	K APPROPRIATE BOXES TO INDICAT	E NATURE OF NOTICE, REPOR	RT, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
	ACIDIZE	ALTER CASING	CASING REPAIR
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME
	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	NEW CONSTRUCTION
	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK
SPUD REPORT	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL
DRILLING REPORT Report Date:	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION
5/23/2012	_		OTHER:
MIRU AIR RIG ON S SURFACE CASING	wildcat well determination COMPLETED OPERATIONS. Clearly show a 5/20/2012. DRILLED SURFAC AND CEMENTED. WELL IS WA NT JOB WILL BE INCLUDED WI REPORT.	E HOLE TO 2710'. RAN ITING ON ROTARY RIG.	<u> </u>
NAME (PLEASE PRINT) Cara Mahler	PHONE NUMBI 720 929-6029	Regulatory Analyst I	
SIGNATURE N/A		DATE 5/23/2012	
L + +4 * *			

Sundry Number: 28473 API Well Number: 43047522870000

	STATE OF UTAH		FORM 9
ı	DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	3	5.LEASE DESIGNATION AND SERIAL NUMBER: ML 22265
SUNDR	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:		
	posals to drill new wells, significantly deep reenter plugged wells, or to drill horizontal I n for such proposals.		7.UNIT or CA AGREEMENT NAME:
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: Morgan State 921-36K1CS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	ISHORE, L.P.		9. API NUMBER: 43047522870000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th	PHC n Street, Suite 600, Denver, CO, 80217 377	NE NUMBER: '9 720 929-6	9. FIELD and POOL or WILDCAT: 5NIATUERAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2281 FNL 1807 FWL			COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSH	HIP, RANGE, MERIDIAN: 36 Township: 09.0S Range: 21.0E Meridian:	s	STATE: UTAH
11. CHECI	K APPROPRIATE BOXES TO INDICATE N	ATURE OF NOTICE, REPOR	T, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
	ACIDIZE	ALTER CASING	CASING REPAIR
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME
SUBSEQUENT REPORT	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE
Date of Work Completion:	DEEPEN	FRACTURE TREAT	NEW CONSTRUCTION
	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK
SPUD REPORT Date of Spud:	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON
✓ DRILLING REPORT	TUBING REPAIR	/ENT OR FLARE	WATER DISPOSAL
Report Date: 8/2/2012	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION
0/2/2012	WILDCAT WELL DETERMINATION	OTHER	OTHER:
No activity for the	COMPLETED OPERATIONS. Clearly show all pe month of July 2012. Surface ca	_	epths, volumes, etc. Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY August 06, 2012
NAME (PLEASE PRINT) Cara Mahler	PHONE NUMBER 720 929-6029	Regulatory Analyst I	
SIGNATURE N/A		DATE 8/2/2012	

Sundry Number: 29200 API Well Number: 43047522870000

	STATE OF UTAH		FORM 9
ı	DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	3	5.LEASE DESIGNATION AND SERIAL NUMBER: ML 22265
SUNDR	Y NOTICES AND REPORTS ON	WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
	posals to drill new wells, significantly deep reenter plugged wells, or to drill horizontal I n for such proposals.		7.UNIT or CA AGREEMENT NAME:
1. TYPE OF WELL Gas Well	8. WELL NAME and NUMBER: MORGAN STATE 921-36K1CS		
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	ISHORE, L.P.		9. API NUMBER: 43047522870000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th	PHO n Street, Suite 600, Denver, CO, 80217 377	NE NUMBER: 720 929-6	9. FIELD and POOL or WILDCAT: 5NIATUERAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2281 FNL 1807 FWL			COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSH	HIP, RANGE, MERIDIAN: 36 Township: 09.0S Range: 21.0E Meridian:	S	STATE: UTAH
11. CHECI	K APPROPRIATE BOXES TO INDICATE N	ATURE OF NOTICE, REPOR	T, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
FINISHED DRILLIN PRODUCTION CASIN 318 RIG ON 8/22/20 WITH THE WELL C COMPLETION A	CHANGE TO PREVIOUS PLANS CHANGE WELL STATUS DEEPEN OPERATOR CHANGE PRODUCTION START OR RESUME REPERFORATE CURRENT FORMATION TUBING REPAIR WATER SHUTOFF	N 4-1/2" 11.6# I-80 SING. RELEASED H&P WILL BE INCLUDED VAITING ON FINAL CATION WILL BE	CASING REPAIR CHANGE WELL NAME CONVERT WELL TYPE NEW CONSTRUCTION PLUG BACK RECOMPLETE DIFFERENT FORMATION TEMPORARY ABANDON WATER DISPOSAL APD EXTENSION OTHER: ACTS PIT Pepths, volumes, etc. Accepted by the Utah Division of Oil, Gas and Mining Date: August 29, 2012 By:
NAME (PLEASE PRINT) Cara Mahler	PHONE NUMBER 720 929-6029	TITLE Regulatory Analyst I	
SIGNATURE N/A		DATE 8/24/2012	

Sundry Number: 30518 API Well Number: 43047522870000

	STATE OF UTAH		FORM 9
ı	DEPARTMENT OF NATURAL RESOURC DIVISION OF OIL, GAS, AND MIN	=	5.LEASE DESIGNATION AND SERIAL NUMBER: ML 22265
SUNDR	Y NOTICES AND REPORTS	ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
Do not use this form for pro current bottom-hole depth, I FOR PERMIT TO DRILL form	posals to drill new wells, significantly reenter plugged wells, or to drill horizon for such proposals.	deepen existing wells below ntal laterals. Use APPLICATION	7.UNIT or CA AGREEMENT NAME:
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: MORGAN STATE 921-36K1CS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	ISHORE, L.P.		9. API NUMBER: 43047522870000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th	n Street, Suite 600, Denver, CO, 80217	PHONE NUMBER: 73779 720 929-	9. FIELD and POOL or WILDCAT: 5NATERAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2281 FNL 1807 FWL			COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSH Qtr/Qtr: SENW Section: 3	HP, RANGE, MERIDIAN: 36 Township: 09.0S Range: 21.0E Meric	dian: S	STATE: UTAH
11. CHECI	K APPROPRIATE BOXES TO INDICAT	TE NATURE OF NOTICE, REPOR	RT, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
	ACIDIZE	ALTER CASING	CASING REPAIR
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME
	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	NEW CONSTRUCTION
	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK
SPUD REPORT	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON
	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL
DRILLING REPORT Report Date:	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION
10/3/2012	WILDCAT WELL DETERMINATION	OTHER	OTHER:
No Activity for the	completed operations. Clearly show and month of September 2012	all pertinent details including dates, on 2. Well TD at 9,558.	
NAME (PLEASE PRINT) Lindsey Frazier	PHONE NUMB 720 929-6857	ER TITLE Regulatory Analyst II	
SIGNATURE N/A		DATE 10/3/2012	

Sundry Number: 31687 API Well Number: 43047522870000

	STATE OF UTAH		FORM 9
ı	DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	3	5.LEASE DESIGNATION AND SERIAL NUMBER: ML 22265
SUNDR	RY NOTICES AND REPORTS ON	WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
	posals to drill new wells, significantly deep reenter plugged wells, or to drill horizontal n for such proposals.		7.UNIT or CA AGREEMENT NAME:
1. TYPE OF WELL Gas Well	8. WELL NAME and NUMBER: MORGAN STATE 921-36K1CS		
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	9. API NUMBER: 43047522870000		
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18tl	PHC h Street, Suite 600, Denver, CO, 80217 377	DNE NUMBER: 79 720 929-6	9. FIELD and POOL or WILDCAT: 5NIATUERAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2281 FNL 1807 FWL			COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSH Qtr/Qtr: SENW Section: 3	HIP, RANGE, MERIDIAN: 36 Township: 09.0S Range: 21.0E Meridian:	S	STATE: UTAH
11. CHEC	K APPROPRIATE BOXES TO INDICATE N	ATURE OF NOTICE, REPOR	T, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
	CHANGE TO PREVIOUS PLANS CHANGE WELL STATUS DEEPEN OPERATOR CHANGE PRODUCTION START OR RESUME REPERFORATE CURRENT FORMATION TUBING REPAIR WATER SHUTOFF		CASING REPAIR CHANGE WELL NAME CONVERT WELL TYPE NEW CONSTRUCTION PLUG BACK RECOMPLETE DIFFERENT FORMATION TEMPORARY ABANDON WATER DISPOSAL APD EXTENSION OTHER: EPTHS, VOLUMES, etc. Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY NOVEMBER 06, 2012
NAME (PLEASE PRINT) Jaime Scharnowske	PHONE NUMBER 720 929-6304	TITLE Regulartory Analyst	
SIGNATURE N/A		DATE 11/5/2012	

Sundry Number: 32600 API Well Number: 43047522870000

	STATE OF UTAH		FORM 9
ı	DEPARTMENT OF NATURAL RESOURG DIVISION OF OIL, GAS, AND MII		5.LEASE DESIGNATION AND SERIAL NUMBER: ML 22265
SUNDR	Y NOTICES AND REPORTS	ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
Do not use this form for pro current bottom-hole depth, I FOR PERMIT TO DRILL form	posals to drill new wells, significantly reenter plugged wells, or to drill horizon n for such proposals.	deepen existing wells below ontal laterals. Use APPLICAT	7.UNIT or CA AGREEMENT NAME:
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: MORGAN STATE 921-36K1CS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	ISHORE, L.P.		9. API NUMBER: 43047522870000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th	n Street, Suite 600, Denver, CO, 8021	PHONE NUMBER: 7 3779 720	9. FIELD and POOL or WILDCAT: 929-65NATUERAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2281 FNL 1807 FWL			COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSH Qtr/Qtr: SENW Section: 3	IIP, RANGE, MERIDIAN: 36 Township: 09.0S Range: 21.0E Meri	dian: S	STATE: UTAH
11. CHECI	K APPROPRIATE BOXES TO INDICA	TE NATURE OF NOTICE, RE	EPORT, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTIO	V
	ACIDIZE	ALTER CASING	☐ CASING REPAIR
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME
	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIO	NS CONVERT WELL TYPE
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	NEW CONSTRUCTION
	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK
SPUD REPORT	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON
	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL
DRILLING REPORT Report Date:	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION
12/3/2012	WILDCAT WELL DETERMINATION	OTHER	OTHER:
12 DESCRIBE PROPOSED OR	COMPLETED OPERATIONS. Clearly show	all pertinent details including da	<u> </u>
	completing the well. Well T	•	Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY December 03, 2012
NAME (PLEASE PRINT) Jaime Scharnowske	PHONE NUME 720 929-6304	BER TITLE Regulartory Analyst	
SIGNATURE N/A		DATE 12/3/2012	

Sundry Number: 33092 API Well Number: 43047522870000

	STATE OF UTAH				FORM 9
ı	DEPARTMENT OF NATURAL RESOU DIVISION OF OIL, GAS, AND M		i	5.LEASE DESIGNATION AND SEF ML 22265	RIAL NUMBER:
SUNDR	RY NOTICES AND REPORTS	S ON	WELLS	6. IF INDIAN, ALLOTTEE OR TRI	BE NAME:
	oposals to drill new wells, significant reenter plugged wells, or to drill hori: n for such proposals.			7.UNIT or CA AGREEMENT NAM	E:
1. TYPE OF WELL Gas Well				8. WELL NAME and NUMBER: MORGAN STATE 921-36K1C	s
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	ISHORE, L.P.			9. API NUMBER: 43047522870000	
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th	h Street, Suite 600, Denver, CO, 802		NE NUMBER: 9 720 929-6	9. FIELD and POOL or WILDCAT	:
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2281 FNL 1807 FWL				COUNTY: UINTAH	
QTR/QTR, SECTION, TOWNSH	HIP, RANGE, MERIDIAN: 36 Township: 09.0S Range: 21.0E Me	eridian: :	S	STATE: UTAH	
11. CHECI	K APPROPRIATE BOXES TO INDIC	ATE N	ATURE OF NOTICE, REPOR	T, OR OTHER DATA	
TYPE OF SUBMISSION			TYPE OF ACTION		
	ACIDIZE		LTER CASING	CASING REPAIR	
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS		HANGE TUBING	CHANGE WELL NAME	
	CHANGE WELL STATUS		OMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE	
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	□ F	RACTURE TREAT	NEW CONSTRUCTION	
	OPERATOR CHANGE	P	LUG AND ABANDON	PLUG BACK	
SPUD REPORT	✓ PRODUCTION START OR RESUME	□ R	ECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FOR	MATION
Date of Spud:	REPERFORATE CURRENT FORMATION	□ s	IDETRACK TO REPAIR WELL	TEMPORARY ABANDON	
	TUBING REPAIR	□ v	ENT OR FLARE	WATER DISPOSAL	
✓ DRILLING REPORT Report Date:	WATER SHUTOFF	□s	I TA STATUS EXTENSION	APD EXTENSION	
12/12/2012	WILDCAT WELL DETERMINATION		THER	OTHER:	i
The subject wel	COMPLETED OPERATIONS. Clearly sho Il was placed on productio I History will be submitted report.	n on	12/12/2012. The	Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD December 17, 2	ONLY
NAME (PLEASE PRINT) Lindsey Frazier SIGNATURE	PHONE NUM 720 929-6857	MBER	TITLE Regulatory Analyst II DATE		
N/A			12/14/2012		

Sundry Number: 33584 API Well Number: 43047522870000

	STATE OF UTAH			FO	RM 9
ι	DEPARTMENT OF NATURAL RESOUF DIVISION OF OIL, GAS, AND M			5.LEASE DESIGNATION AND SERIAL NUM ML 22265	BER:
SUNDR	Y NOTICES AND REPORTS	SON	WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME	i:
	posals to drill new wells, significantl eenter plugged wells, or to drill horiz n for such proposals.			7.UNIT or CA AGREEMENT NAME:	
1. TYPE OF WELL Gas Well				8. WELL NAME and NUMBER: MORGAN STATE 921-36K1CS	
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	ISHORE, L.P.			9. API NUMBER: 43047522870000	
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th	n Street, Suite 600, Denver, CO, 802		NE NUMBER: 9 720 929-6	9. FIELD and POOL or WILDCAT: 5NATERAL BUTTES	
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2281 FNL 1807 FWL				COUNTY: UINTAH	
QTR/QTR, SECTION, TOWNSH	IIP, RANGE, MERIDIAN: 86 Township: 09.0S Range: 21.0E Me	ridian: \$	S	STATE: UTAH	
11. CHECI	K APPROPRIATE BOXES TO INDICA	ATE NA	ATURE OF NOTICE, REPOR	RT, OR OTHER DATA	
TYPE OF SUBMISSION			TYPE OF ACTION		
	ACIDIZE		LTER CASING	CASING REPAIR	
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	□ c	HANGE TUBING	CHANGE WELL NAME	
Approximate date work will start.	CHANGE WELL STATUS	□ c	OMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE	
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	□ г	RACTURE TREAT	☐ NEW CONSTRUCTION	
	OPERATOR CHANGE	□ Р	LUG AND ABANDON	PLUG BACK	
SPUD REPORT	PRODUCTION START OR RESUME		ECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION	
Date of Spud:	REPERFORATE CURRENT FORMATION		IDETRACK TO REPAIR WELL	TEMPORARY ABANDON	
✓ DRILLING REPORT	L TUBING REPAIR		ENT OR FLARE	WATER DISPOSAL	
Report Date: 1/3/2013	WATER SHUTOFF	∟ s	I TA STATUS EXTENSION	APD EXTENSION	
	WILDCAT WELL DETERMINATION	o	THER	OTHER:	
Well was completed	COMPLETED OPERATIONS. Clearly show	repo	ort. Well TD at 9,558	Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY January 04, 2013	r
NAME (PLEASE PRINT) Laura Abrams	PHONE NUM 720 929-6356	1BER	TITLE Regulatory Analyst II		
SIGNATURE N/A			DATE 1/3/2013		

RECEIVED: Jan. 03, 2013

STATE OF LITAH

				TMEN	TATE OF NA	TURA	L RESC					(hi	ghlight cha	REPORT anges) INATION AND		ORM 8
					· • · -,								ML 2226			
WEL	L COMP	LET	ION	OR F	RECO	MPL	ETIC	ON RI	EPOF	RT ANI	DLOG	6. 11	f Indian, ali	LOTTEE OR TI	RIBE NAME	
1a. TYPE OF WELL	<u></u>	OIL		(GAS WELL Z	7]	DRY		OTH	ER		7. U	JNIT or CA AC	GREEMENT NA	AME	
b. TYPE OF WORK NEW WELL	K: HORIZ.	DE EN	EP-	F E	RE- ENTRY]	DIFF. RESVR.		от⊦	ER		_	MORGA	and NUMBER: N STATE	E 921-36	K1CS
NAME OF OPERA		& GA	S ON:	SHOR	 RE. L.P								191 NUMBER: 4304752			
3. ADDRESS OF OF P.O.BOX 17	PERATOR:			NVER			CO	ZIP 802	 217		NUMBER: 20) 929-6000		NATUR	OOL, OR WILD AL BUTT	ES	
4. LOCATION OF W AT SURFACE:	ÆLL (FOOTAG		NL 18	07 FW	/L S36	,T9S,	R21E					1 .		ECTION, TOW	NSHIP, RANG	
AT TOP PRODU	CING INTERVA	L REPOR	TED BEL	.ow: N	IESW :	2273	FSL 2	133 F	WL S3	6, T 9S,F	R21E				- 1	
AT TOTAL DEPT	H NESW	/ 2261	FSL	2148	FWL S	36,T9)S,R2	1E	·				COUNTY JINTAH		13. STATE	UTAH
4. DATE SPUDDE 4/17/2012		DATE T.I 8/20/2	012		2.69	2/201	12	' ' <u></u>	ABANDON	ED 🗌	READY TO PRODU	CE 🚺	502	TIONS (DF, RK 9 RKB		
18. TOTAL DEPTH:	MD 9,55 TVD 9,43		1	9. PLUG	BACK T.D		9,444 9,320		20. i Fi	MULTIPLE C	OMPLETIONS, HOW	MANY? *	21. DEPTH PLUG	SET:	D /D	
CBL/GR/CC		MECHANI	CAL LOG	SS RUN (S	Submit cop	y of each				WAS DST	L CORED? RUN? NAL SURVEY?	NO NO	==	S (Su	bmit analysis bmit report) bmit copy))
24. CASING AND LI	INER RECORD	(Report a	ll strings	set in we	ell)											
HOLE SIZE	SIZE/GRAI	DE 1	WEIGHT	(#/ft.)	TOP (I	MD)	воттс	M (MD)		CEMENTER EPTH	CEMENT TYPE & NO. OF SACKS		RRY IE (BBL)	CEMENT TOP	** AMOUN	IT PULLED
20"	14"	STL	36.7	' #	0		4	0			28					
11"	8 5/8" l	J-55	28‡	#	0			699			745			0		<u>-</u>
7 7/8"	4 1/2"	I-80	11.6	6#	0		9,4	492			1,538	8		1962	<u> </u>	
										_		4		RECE	IVED	
		<u> </u>					<u></u>				<u> </u>		<u> </u>	JAN 1	5 2013	
25. TUBING RECOR	DEPTH SE	=T (MD)	PACKE	ER SET (N	4D)	SIZE		DEPTH	SET (MD	PACKE	R SET (MD)	SIZE	BER	TPEDIMO/	\$ PACKER	RET (MD)
2 3/8"	8,88		TAORE	IN OLT (II		VIZE		<u> </u>	. 021 (1112	, , , , , , ,				(- 40	7 5 1111111	
26. PRODUCING IN			<u> </u>							27. PERFO	RATION RECORD					
FORMATION	NAME	TOP (MD)	вотто	M (MD)	TOP	(TVD)	вотто	M (TVD)	INTERVA	AL (Top/Bot - MD)	SIZE	NO. HOLES	PERFO	PRATION ST	ATUS
A) WASATC	Н	6,6	44	7,3	338					6,644	7,338	0.36	57	Open 🗸	Squeezed	
B) MESAVE	RDE	7,4	06	9,3	379					7,406	9,379	0.36	180	Open 🗸	Squeezed	
C)											*****			Open	Squeezed	
D)														Open	Squeezed	
28. ACID, FRACTU	RE, TREATMEN	NT, CEME	NT SQUE	EZE, ETC	 D.											
	INTERVAL	\neg		_	-		_		AM	OUNT AND T	YPE OF MATERIAL					
 6644-9379			PUM	IP 11	069 BF	31.5.5	IICK	H2O 8	258.0	94 LBS	30/50 OTTA	WA S	AND			
0044-3010				TAGE					. 200,							
							_									
29. ENCLOSED AT	TACHMENTS:									······································				30. WE	LL STATUS	:
=	RICAL/MECHAI								IC REPOR		_	Z DIREC	CTIONAL SUR	RVEY	PRO	D
SUNDF SUNDF	RY NOTICE FOR	R PLUGGI	NG AND	CEMENT	VERIFICA	HON	Ш	CORE AN	IALYSIS	Ш	OTHER:	····	<u> </u>	— j		

(CONTINUED ON BACK)

24	IAIITIAI	PRODUCTION

INTERVAL A (As shown in item #26)

	·	T		1		TEAT BEADUATION	OII DDI	GAS – MCF:	WATER - BBL:	PROD. METHOD:
12/12/20	-		TEST DATE: HOURS TESTED: 24			TEST PRODUCTION RATES: →	OIL – BBL:	1,883	0	FLOWING
сноке size: 20/64	TBG. PRESS. 2,307	CSG. PRESS. 3,121	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL: O	GAS – MCF: 1,883	WATER – BBL:	INTERVAL STATUS
				IN	TERVAL B (As sho	wn in item #26)	•			
DATE FIRST PR	RODUCED:	TEST DATE:		HOURS TESTE	D:	TEST PRODUCTION RATES: →	OIL – BBL:	GAS MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:
				INT	TERVAL C (As sho	wn in item #26)	•			
DATE FIRST PR	RODUCED:	TEST DATE:		HOURS TESTE	D:	TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER - BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER BBL:	INTERVAL STATUS:
	<u> </u>	<u> </u>	<u>L</u>	INT	TERVAL D (As show	wn in item #26)				
DATE FIRST PR	ODUCED:	TEST DATE:		HOURS TESTE	D:	TEST PRODUCTION RATES: →	OIL – BBL:	GAS MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER - BBL:	INTERVAL STATUS:

32. DISPOSITION OF GAS (Sold, Used for Fuel, Vented, Etc.)

SOLD

33. SUMMARY OF POROUS ZONES (Include Aquifers):

34. FORMATION (Log) MARKERS:

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

Formation	Top (MD)	Bottom (MD)	Descriptions, Contents, etc.	Name	Top (Measured Depth)
				GREEN RIVER BIRD'S NEST MAHOGANY WASATCH MESAVERDE	1,349 1,762 2,226 4,724 7,398

35. ADDITIONAL REMARKS (Include plugging procedure)

The first 210' of the surface hole was drilled with a 12 ¼" bit. The remainder of surface hole was drilled with an 11" bit. DQX csg was run from surface to 5068'; LTC csg was run from 5068' to 9492'. Attached is the chronological well history, perforation report & final survey.

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records.

NAME (PLEASE PRINT) LINDSEY FRAZIER

SIGNATURE

ITLE REGULATORY ANALYST

Г

DATE 1/9/2013

This report must be submitted within 30 days of

· completing or plugging a new well

- drilling horizontal laterals from an existing well bore
- recompleting to a different producing formation
- reentering a previously plugged and abandoned well
- significantly deepening an existing well bore below the previous bottom-hole depth
- drilling hydrocarbon exploratory holes, such as core samples and stratigraphic tests
- * ITEM 20: Show the number of completions if production is measured separately from two or more formations.
- ** ITEM 24: Cement Top Show how reported top(s) of cement were determined (circulated (CIR), calculated (CAL), cement bond log (CBL), temperature survey (TS)).

Send to:

Utah Division of Oil, Gas and Mining 1594 West North Temple, Suite 1210

Box 145801

Salt Lake City, Utah 84114-5801

Phone: 801-538-5340

Fax: 801-359-3940

(5/2000)

US ROCKIES REGION

Operation Summary Report

110,000.017.017.017					ORGAN STATE 921-36F3 PAD ate: 5/7/2012 UWI: SE/NW/0/9/S/21/E/36/0/0/26/PM/N/2281				Rig Name No: H&P 318/318, PROPETRO 11/11	
									End Date: 8/22/2012	
Level)							The second state of the se			
Date	5	Γime art-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation	
5/20/2012		- 21:30	3.50	MIRU	01	В	Р		M.S. 921-36K1CS (WELL 3 OF 3) INSTALL DIVERTOR HEAD AND BLUEY LINE. SPOT IN RIG. SPOT IN CATWALK AND PIPE RACKS. RIG UP CLOSED LOOP SYSTEM. RIG UP PUMP. PRIME PUMP. INSPECT RIG. SAFETY MEETING TIH #1 BHA WITH 12.25" BIT	
	21:30	- 22:00	0.50	DRLSUR	06	Α	P -			
		- 23:30	1.50	DRLSUR	02	D	P P		DRL F/ 44'- T/210' (166'@ 110.6' PER HR) W.O.B. 5-15K RPM 45	
		- 0:00	0.50	DRLSUR	06	A A	' Р		TIH #2 BHA WITH 11" BIT	
5/21/2012		- 1:00	1.00	DRLSUR DRLSUR	06 02	D	P		DRL F/210' T/1200' (990'@ '90' PER HR) W.O.B. 20K	
	1:00	- 12:00	11.00	DREGUN	02	U	•		RPM 45 UP/DWN/ROT 71/54/63 PSI ON/OFF 1300/1100 M.W. 8.7 VIS 27 395.8 GPM PUMP RATE / NO AIR NOV-DEWATERING 9.55 LEFT 10.66 LOW OF LINE	
	12:00	- 0:00	12.00	DRLSUR	02	D	Р		DRL F/1200' T/2360' (1160'@ 96.6' PER HR) W.O.B. 20K RPM 45 UP/DWN/ROT 90/60/72 PSI ON/OFF 1400/1150 M.W. 8.7 VIS 27 395.8 GPM PUMP RATE / 24.2 CFM NOV-DEWATERING 7.18 LEFT / 2.49 BELOW THE LINE	
5/22/2012	0:00	- 5:30	5.50	DRLSUR	02	D	Р		DRL F/2360' T/2710' (350' @ 63.6' PER HR) W.O.B. 20K RPM 45 UP/DWN/ROT 93/66/79 PSI ON/OFF 1550/1350 M.W. 8.8 VIS 27 395.8 GPM PUMP RATE / NO AIR NOV-DEWATERING .87' LEFT 3.22' ABOVE LINE	
	5:30	- 7:30	2.00	DRLSUR	05	С	Р		CIRCULATE FOR CASING	
	7:30	- 8:30	100	DRLSUR	06	D	Р		LDDS, BHA & DIR. TOOLS, PULLED 25 JOINTS, TOOK GAS KICK	
	8:30	- 9:30	1.00	DRLSUR	06	Α	Χ		TIH THE HOLE 20 JOINTS, RIG UP TO SPOT MUD	
	9:30	- 12:00	2.50	DRLSUR	21	D	Х		WAIT ON TRUCKS WITH MUD COMING FROM H & P	
	12:00	- 13:00	1.00	DRLSUR	05	С	P		SPOT DRILL MUD	
		- 16:00	3.00	DRLSUR	06	Α .	P		LDDS,BHA & DIR. TOOLS	
	16:00	- 17:00	1.00	DRLSUR	12	Α	Р		MOVE PIPE RACKS AND CATWALK. PULL. DIVERTER HEAD. RIG UP TO RUN CSG. MOVE CSG INTO POSITION TO P/U.	
		- 20:00	3.00	DRLSUR	12	C	Р		RUN 61 JOINTS 8 5/8", 28#, J55 CASING SHOE IS AT 2675' BAFFLE IS AT 2630.8'	
		- 20:30	0.50	DRLSUR	05	D -	P		PUMP 150BBLS AHEAD BEFORE CEMENT	
	20:30	- :21:00	0.50	DRLSUR	12	В	Р		HOLD SAFETY MEETING PUMP ON CASING RUN 200' OF 1". RIG DOWN RIG MOVE OFF WELL, REBUILD DITCH. RIG UP CEMENT TRUCK, 2" HARD LINES,.	

US ROCKIES REGION

Operation Summary Report

Well: MORGAN STATE 921-36K1CS YELLOW						ATE 004	0050 040	Spud Date: 5/20/20			
Project: UTAH-UINTAH Site: MO Event: DRILLING Start Dat					RGAN ST	ATE 921	-36F3 PAD		Rig Name No: H&P 318/318, PROPETRO 11/11		
					e: 5/7/2012				End Date: 8/22/2012		
Active Datum: F Level)	RKB @5,0)29.00usft (ab	ove Mean S	ea	UWI: SE/NW/0/9/S/21/E/36/0/0/26/PM/N/2281/W/0/1807/0/0						
Date	1 42 10 1	Time tart-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation		
		- 22:30 - 0:00	1.50	DRLSUR	12	E A	P	T H Y 1 1 4 F P C V B R	PRO PETRO CMTERS MAKE UP HEAD & LOAD PLUG PEST LINES TO 2000 PSI. PUMP 145 BBLS OF 8.4# 120 AHEAD. PUMP 220 SX(149 BBLS) 11# 3.82 PIELD LEAD CEMENT. PUMP 200 SX (41 BBLS) OF 5.8# 1.15 YIELD TAIL(2% CALC, 1/4# /SK OF LOCELE). DROP PLUG ON IFLY AND DISPLACE W/ 60.4 BBLS OF 8.4# H20. FINAL LIFT PRESSURE 80 PSI. BUMP PLUG AND HOLD 800 PSI FOR 5 MIN. LOAT HELD, PARTIAL NO CEMENT TO SURF PUMP 200 SX 15.8# (40.9BBLS) CMT W/4% CALCIUM DOWN 1". CEMENT FELL BACK VOC PUMP 100SX (20.5 BBLS) CMT DOWN ACKSIDE. CEMENT TO SURFACE, FELL AWAY, RELEASE RIG @ 00:00 TOP OUT CMT 5/24/2012		
011210010	11:00	- 11:30	0.50	MIRU	01	С	Р		PREPAIR TO SKID RIG		
8/17/2012			0.50	MIRU	01	C	P		KEI AIK TO GROWN MELL HEAD		
		- 13:00 - 14:00	1.50	MIRU	01	В	P	_	IG UP TO SPUD MOVE PIPE WRANGLER		
		- 15:00	1.00 1.00	DRLPRO	14	A	, Р		IIPPLE UP BOPS , CHOKE LINES		
		- 19:00	4.00	DRLPRO	15	A	P	T V L	EST BOPS TEST IBOP , FLOOR VAVLE, WNGI VAVLES, PIPE, BLINDRAMS, CHOKE MANFOLD OW 250 PSI HIGH 5,000 PSI ANN, LOW 250 HIGH 500 PSI 8 58 CASING 1500 PSI FOR 30 MINS		
	19:00	- 20:30	1.50	DRLPRO	14	Α	Р	11	NSTALL WEAR BUSHING , ROT HEAD BEARING PACK		
	20:30	- 23:30	3.00	DRLPRO	15	A	Z	R B	EST 1,000 PSI NOV LINE , CHOKE SMITH COTATING BEARING PACL LEAKED 3 TIME HAD CUILD 3 NEW ORING OUT TESTER KIT SMITH HAD IO ORING ON LOCTION		
	23:30	- 0:00	0.50	DRLPRO	06	Α	Р	P	ICK UP MWD TOOLS		
8/18/2012	0:00	- 2:00	2.00	DRLPRO	06	Α	Р	P	YU BHA TIH TO 2620 TAGED TOP OF CMT.		
	2:00	- 2:30	0.50	DRLPRO	02	F	Р	D	RILL SHOE TRACK OUT		
		- 16:00 - 16:30	0.50	DRLPRO	02 07	D	P	V P S N T N S S	PRILL F 2734 TO 4523 FT 1789 ROP 132.5 VOB - 22 K RPM - 48 TO 55 MM RPM 151 PUMP ON/OFF 2050 / 1600 PM 120 GPM 540 MUD WT 8.3 VIS 26 PRQ. ON/OFF MOV - DEWATERING EWACO - OFF LINE SILIDE FT 262 HRS. 4 MINS 0 ROP 65.5		
		- 0:00		DRLPRO	07	73	•		PRILL F 4523 TO 5565 FT 1042 ROP 138.9		
	10.30	- 0,00	7.50	DILLERO				V P S M T N S S	WOB - 22 K RPM - 46 TO 55 MM RPM 151 WOB - 22 K RPM - 46 TO 55 MM RPM 151 WMP ON/ OFF 2250 / 1800 WMP ON/ OFF 2250 / 1800 WMP ON/ OFF 32 OFF WMP ON/ OFF 12 / 6 WMP ON/ OFF 12 / 6		

Operation Summary Report

Well: MORGAN S	STATE 921	-36K1CS \	/ELLOW					Spud Date: 5/20/2012
Project: UTAH-UI	NTAH			Site: MOF	RGAN ST	ATE 921-	-36F3 PAD	Rig Name No: H&P 318/318, PROPETRO 11/11
Event: DRILLING				Start Date	e: 5/7/201	2		End Date: 8/22/2012
Active Datum: Rk		.00usft (ab	ove Mean S	ea	UWI: SE	E/NW//0/9/	/S/21/E/36	0/0/26/PM/N/2281/W/0/1807/0/0
Date	Tin Start		Duration (hr)	Phase	Code	Sub Code	P/U	MD From Operation (usft)
8/19/2012	0:00 -	14:30	14.50	DRLPRO	02	D	P	DRILL F 5565 TO 7100 FT 1535 ROP 105.86 WOB - 24 K RPM - 55 TO 60 MM RPM 151 PUMP ON/OFF 2200 / 1850 SPM 120 GPM 540 MUD WT 8.5 VIS 26 TRQ. ON/OFF 12 / 6 NOV - DEWATERING SWACO - OFF LINE SLIDE FT 46 HRS. 1 MINS 35 ROP 30.6 P/U230 S/O 120 R/T 156 RIG SER.
	15:00 -	15:30	0.50	DRLPRO	80	В	Z	***CHANGED OUT LINER , SWAB ON # 1 PUMPCHANGED OUT ALL VAVLES IN # 2 MUD PUMP
	15:30 -	- 0:00	8.50	DRLPRO	02	D	Р	DRILL F 7100 TO 7730 FT 630 ROP 74.11 WOB - 24 K RPM - 55 TO 70 MM RPM 138.6 PUMP ON/OFF 2200 / 1850 SPM 55 & 55 GPM 495 MUD WT 8.8 VIS 27 TRQ. ON/OFF 15 / 14 NOV - DEWATERING SWACO - OFF LINE SLIDE FT 10' HRS - 0. MINS - 40 ROP P/U 245 S/O 125 R/T 170
8/20/2012	0:00	- 11:00	11.00	DRLPRO	02	а	Р	DRILL F 7730 TO 8665 FT 935' ROP 85.0 WOB - 24 K RPM - 55 TO 70 MM RPM 138.6 PUMP ON/OFF 2100 / 1750 SPM 55 & 55 GPM 495 MUD WT 8.8 VIS 27 TRQ. ON/OFF 17 / 19 NOV - DEWATERING SWACO - OFF LINE SLIDE FT 26' 2.0 HRS 25 MINS ROP 11.55 P/U 245 S/O 125 R/T 170
	11:00	- 11:30	0.50	DRLPRO	07	Α	Р	RIG SER
	11:30	- 23:30	12.00	DRLPRÓ	02	D	P	DRILL F 8665 TO 9558 FT 893" ROP 74.41 WOB - 24 K RPM - 72 MM RPM 138.6 PUMP ON/ OFF 2100 / 1750 SPM 55 & 55 GPM 495 MUD WT 8.8 VIS 27 TRQ. ON/OFF 21 / 19 NOV - OFF LINE SWACO - OFF LINE SLIDE FT 0 0 HRS 0 MINS ROP P/U 320 S/O 149 R/T 200 SURVEY 2.49' EAST & 1.03' SOUTH OF TARGET CENTER
	23:30	- 0:00	0.50	DRLPRO	05	В	Р	CIRC OUT DIRTY WATER , DISPLACE WITH 12.0 MUD
8/21/2012	0:00	- 6:30	6.50	DRLPRO	05	С	P	CIRC COND DISPLACED DIRTY WATER WITH 11.9 VIS 42 MUD BUILED VOLUM TO TRIP WITH FOR SHORT TRIP
	6:30	- 10:00	3.50	DRLPRO	06	E	Р	TOH 25 STDS. FOR SHORT TRIP HAD TIGHT SOPT 7450 TIH WASHED F/ 9450 TO 9558
1	10:00	- 12:00	2.00	DRLPRO	05	Α	Р	CIRC COND MUD TO LAY DOWN 4.5 DRILL PIPE

Operation Summary Report

Soud Date: 5/20/2012 Well: MORGAN STATE 921-36K1CS YELLOW Rig Name No: H&P 318/318, PROPETRO 11/11 Site: MORGAN STATE 921-36F3 PAD Project: UTAH-UINTAH End Date: 8/22/2012 Event: DRILLING Start Date: 5/7/2012 UWI: SE/NW/0/9/S/21/E/36/0/0/26/PM/N/2281/W/0/1807/0/0 Active Datum: RKB @5,029.00usft (above Mean Sea Operation Phase Code P/U MD From Date Sub Duration Time (usft) Start-End Code (hr) 12:00 - 0:00 Р PULLED 10 STDS SET BACK IN DERICK LAY DOWN DRLPRO 06 12.00 Α 4.5 DRILL PIPE.MWD TOOLS & BHA CHANGE OUT SMITH BEARING PACK TO PULL 0:00 - 0:30 0.50 DRLPRO 12 C Р 8/22/2012 WEAR BUSHING RIG UP KIMZEY CASING CREWHELD SAFETY 0:30 DRLPRO 12 - 1:30 1.00 MEETING TRUN 217 JTS CASING SHOE @9491 FC @ 9447 DRLPRO С P 1:30 - 8:30 7.00 12 MARKER JTS @ 7734 TAGED UP 44 FT OFF BOTTOM DO TO ONE INCH OUT OF GAUGE HOLE CALLED KENNY GAITHINGS TALKED TO HIM & TRYED TO WORK TO BOTTOM IT WOULD PRESSURE UP & STICK US SO WE COULD NOT CIRCULATE WORKED IT FREE & CEMENTED CASING 44 FOOT OFF BOTTOM KENNY TALKED TO JOHN **STRAHAN** CIRC CASING &GAS OUT 2' FLARE 8:30 - 10:00 1.50 DRLPRO 05 D RIG UP BJ SERVICES HELD SAFETY MEETING LEAD Ε Р 10:00 - 13:30 3.50 DRLPRO 12 CMT 12.5 YIELD 1.98 517 SX CMT TAIL 14.3 YIELD 1.32 1021 SX CMT DISPLACED WITH 148 BBLS BUMPED PLUG WITH 3200 PSI FLOATS HELD LIFT PSI 2700 RETURNED 15 BBLS OF SPACER FLUID HAD FULL RETUNES ON CMT JOB NO CMT TO SURFACE 2.00 DRLPRO 12 В SET EMERGENCY SLIPS WITH 110 K ON SLIPS CUT 13:30 - 15:30 OFF CASING PACKED OFF CLEAN PIT, NIPPLE DOWN BOPS RIG RELEASED @ 15:30 8/22/2012 E 15:30 - 15:30 0.00 DRLPRO 01

1 General

1.1 Customer Information

Company	US ROCKIES REGION
Representative	
Address	

1.2 Well/Wellbore Information

Well	MORGAN STATE 921-36K1CS YELLOW	Wellbore No.	OH
Well Name	MORGAN STATE 921-36K1CS	Wellbore Name	MORGAN STATE 921-36K1CS
Report No.	1	Report Date	11/26/2012
Project	UTAH-UINTAH	Site	MORGAN STATE 921-36F3 PAD
Rig Name/No.		Event	COMPLETION
Start Date	11/21/2012	End Date	12/12/2012
Spud Date	5/20/2012	Active Datum	RKB @5,029.00usft (above Mean Sea Level)
uwi	SE/NW/0/9/S/21/E/36/0/0/26/PM/N/2281/W/0/1807/0/0		

1.3 General

Contractor		Job Method	PERFORATE	Supervisor	
Perforated Assembly	PRODUCTION CASING	Conveyed Method	WIRELINE		

1.4 Initial Conditions

1.5 Summary

Fluid Type	KCL WATER	Fluid Density	Gross Interval	6,644.0 (usft)-9,379.0 (usft	Start Date/Time	11/26/2012 12:00AM
Surface Press		Estimate Res Press	No. of Intervals	66	End Date/Time	11/26/2012 12:00AM
TVD Fluid Top		Fluid Head	Total Shots	237	Net Perforation Interval	79.00 (usft)
Hydrostatic Press		Press Difference	Avg Shot Density	3.00 (shot/ft)	Final Surface Pressure	
Balance Cond	NEUTRAL				Final Press Date	

2 Intervals

2.1 Perforated interval

Date	Formation/ Reservoir	CCL@ (usft),	CCL-T S (usft)	MD Top (usft)	MD_Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diamete r (in)	Carr Type /Stage No.	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason Misrun
11/26/201	WASATCH/			6,644.0	6,645.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO
2									i					N
12:00AM		1										Annead the transmission of the second		

1/26/201 W. 2:00AM	/ASATCH/ /ASATCH/ /ASATCH/		(usft)	6,721.0 6,733.0 6,759.0	6,722.0 6,734.0 6,761.0	3.00	0.	360 EXP/		3.375 3.375	120.00		23.00	PRODUCTIO N PRODUCTIO	
1/26/201 W. 2:00AM 1/26/201 W 2 12:00AM 11/26/201 W	/ASATCH/		:	6,759.0				360. EXP/		3.375	120.00				:
2:00AM 11/26/201 W 2 12:00AM 11/26/201 W	/ASATCH/		:	6,759.0				360 EXP/	11	3.375	120.00				
1/26/201 W 2 12:00AM 11/26/201 W	VASATCH/		-		6,761.0	3.00	: 0							N	
2 12:00AM 11/26/201 W	VASATCH/				6,761.0	3.00	: 0					CONTRACTOR	<u> </u>		
11/26/201 W			A A A A A A A A A A A A A A A A A A A	6.848 0			· •	360 EXP/		3.375	120.00			PRODUCTIO N	
2			A STATE OF THE STA	6.848 0							<u> </u>	to de			
12:00AM	VASATCH/			5,0.0.0	6,850.0	3.00	0	360 EXP/	a deliverance of the second of	3.375	120.00		1	PRODUCTIO N	
	VASATCH/		: :					,						PROPULATIO	:
11/26/201 W 2		stope ments		6,952.0	6,953.0	3.00	0 : :	360 EXP/		3.375	120.00			PRODUCTIO N	
12:00AM		5 		ļ		1				0.075	120.00		23.00	PRODUCTIO	
11/26/201 W	VASATCH/			7,061.0	7,062.0	3.00	0	360 EXP/		3.375	120.00			N	
12:00AM 11/26/201 W	VASATCH/		40.00	7,079.0	7,081.0	3.00	C	360 EXP/		3.375	120.00		23.00	PRODUCTIO N	:
12:00AM 11/26/201 W 2 12:00AM	VASATCH/			7,131.0	7,132.0	3.00	C	.360 EXP/		3.375	120.00			PRODUCTIO N	of a fillion banks. Authorities or reverse
11/26/201 W 2	VASATCH/	F	1	7,142.0	7,144.0	3.00		.360 EXP/		3.375	120.00		23.00	PRODUCTIO N	
12:00AM 11/26/201 V 2 12:00AM	WASATCH/	\$		7,160.0	7,161.0	3.00	(.360 EXP/		3.375	120.00		23.00	PRODUCTIO N	The state of the s
11/26/201 V 2 12:00AM	NASATCH/	essential to the Tigger on the Company of the Compa	\$ -	7,254.0	7,255.0	3.00	(.360 EXP/		3.375	120.00		23.00	PRODUCTIO N	
11/26/201 V 2 12:00AM	NASATCH/	<u> </u>	- American	7,274.0	7,275.0	3.00	(.360 EXP/	,	3.375	120.00		23.00	PRODUCTIO N	
11/26/201 V 2	WASATCH/		\$: :	7,310.0	7,311.0	3.00		0.360 EXP/		3,375	120.00		23.00	PRODUCTIO N	
12:00AM 11/26/201 V 2	WASATCH/			7,337.0	7,338.0	3.00	and the state of t	0.360 EXP/		3.375	120.00		23.00	PRODUCTIO N	

Date	Formation/ Reservoir	CCL@ (usft)	CCL-T S (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Diamete Add. Shot r (in)	Carr Type /Stage No	Carr Size (in)	Phasing (°)	Charge Desc/Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
11/26/201 2	MESAVERDE/	The state of the s		7,406.0	7,408.0			EXP/	3.375	120.00		23.00	PRODUCTIO N	
12:00AM							LONG MILLION CONTRACTOR CONTRACTO					1 00 00	BBABILATIA	
2	MESAVERDE/		a copping like	7,426.0	7,428.0	3.00	0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
12:00AM				-					0.075	400.00	A CONTRACTOR OF THE CONTRACTOR	22.00	PRODUCTIO	
2	MESAVERDE/			7,489.0	7,490.0	3.00	0.360	EXP/	3.375	120.00		23.00	N	
12:00AM													DDODUGTIO	
2	MESAVERDE/		and the same	7,539.0	7,540.0	3.00	0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	1
12:00AM								N EVD/	3,375	120.00		23.00	PRODUCTIO	
2	MESAVERDE/		· ·	7,554.0	7,555.0	3.00	0.360	EXP/	3,375	120.00		25.00	N	
12:00AM					7 504 0		0.00	D EXP/	3.375	120.00)	23.00	PRODUCTIO	
11/26/201 2 12:00AM	MESAVERDE/	f		7,563.0	7,564.0	3.00	0.36	J EAP/	3.373	120.00		25.00	N	
	MESAVERDE/	i i i	A STATE OF THE STA	7,658.0	7,660.0	3.00	0.36	0 EXP/	3.375	120.00		23.00	PRODUCTIO N	and an accommand the control of the
	MESAVERDE/			7,684.0	7,686.0	3.00	0.36	0 EXP/	3.375	120.00		23.00	PRODUCTIO N	
U104	MESAVERDE/		1	7,733.0	7,735.0	3.00	0.36	0 EXP/	3.375	120.00		23.00	PRODUCTIO N	AMAGONIA III HEROMA III T
	MESAVERDE/		5	7,751.0	7,752.0	3.00	0.36	0 EXP/	3.375	120.00		23.00	PRODUCTIO N	
	MESAVERDE/	1		7,802.0	7,803.0	3.00	0.36	0 EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/26/201 2	MESAVERDE/			7,821.0	7,822.0	3.00	0.36	0 EXP/	3.375	120.00		23.00	PRODUCTIO N	
2	MESAVERDE/			7,863.0	7,864.0	3.00	0.36	0 EXP/	3.375	120.00		23.0	PRODUCTIO N	
12:00AM 11/26/201 2 12:00AM	MESAVERDE/			7,935.0	7,936.0	3.00	0.36	50 EXP/	3.37	120.00		23.0	PRODUCTIO N	

Date	Formation/ Reservoir	CCL@ (usft)	CCL-T S (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diamete r (in)	Carr Type /Stage No	Carr Size (in)	Phasing (°)	Charge Desc/Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
11/26/201	MESAVERDE/			8,184.0	8,185.0			0.360	EXP/	3.375	120.00			PRODUCTIO	
2		1	:					:						N	
12:00AM			-	00070	0.050.0	2.00		0.360	EVD/	3.375	120.00		33.00	PRODUCTIO	
11/26/201	MESAVERDE/		1	8,257.0	8,258.0	3.00		0.360	EAPI	3.373	120.00			N	
12:00AM			1												
	MESAVERDE/			8,275.0	8,276.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO	:
2		1	1										- Control of the Cont	N	
12:00AM						AND THE PROPERTY OF THE PARTY O	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		THE RESERVE THE STREET STREET,			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
11/26/201	MESAVERDE/		:	8,286.0	8,287.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
2 12:00AM		4444		F)					ADDRESS OF THE PARTY OF THE PAR				4	IN	
the street of th	MESAVERDE/			8,351.0	8,352.0	3.00		0.360	EXP/	3,375	120.00		23.00	PRODUCTIO	
2	MEGAVERDE	:		0,001.0	0,002.0	0.00		. 0.000						N	
12:00AM			:										į		
11/26/201	MESAVERDE/	ļ	***	8,396.0	8,398.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO	
2						E.					To a constitution of the second			N	
12:00AM				0.440.0	0.440.6	2.00		0.260	EXP/	3.375	120.00		23.00	PRODUCTIO	
11/26/201	MESAVERDE/			8,448.0	8,449.0	3.00		0.300	EAF	5.57 5	120.00		20.00	N	
12:00AM													1		
	MESAVERDE/		:	8,473.0	8,474.0	3.00	-	0.360	EXP/	3.375	120.00		23.00	PRODUCTIO	
2						***************************************				Make Address of the Control of the				N	
12:00AM	÷					-	}								
11/26/201	MESAVERDE/	- Company		8,512.0	8,513.0	3.00	1	0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
12:00AM			:						1					IN .	
	MESAVERDE/			8.559.0	8,560.0	3.00	! 	0.360	EXP/	3.375	120.00		23.00	PRODUCTIO	
2	WEO/ WEICHE			0,000.0	, 0,000.		1							N	
12:00AM		:							AM SECOND						9. (A. A
11/26/201	MESAVERDE/	j	44	8,643.0	8,644.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO	
2														N	
12:00AM			:	0.052.5	0.054	2 00		0.360) EXP/	3.375	120.00	ALGUERA MARIE CONTRACTOR OF THE STATE OF THE	23.00	PRODUCTIO	
11/26/201	MESAVERDE/	!		8,653.0	8,654.0	3.00		0.360	J EAF/	3.373	120.00		25.00	N	
12:00AM				Addition	To a property of				-				1	PPO I SERVICE	
	MESAVERDE/	1		8,670.0	8,671.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO	
2					At-	Page 1	2					Mary 400-111111	***************************************	N	
12:00AM		1			ļ						400.00	A I I I I I I I I I I I I I I I I I I I		DRODUCTIO	
l	MESAVERDE/		-	8,697.0	8,698.0	3.00	a de la companya de l	0.360	D EXP/	3.375	120.00	17)	23.00	PRODUCTIO N	
2 12:00AM		1					Table and the same of the same	:	THE STATE OF THE S	00.000				1	

Date	Formation/ Reservoir	CCL@ (usft)	CCL-T S (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diamete r (in)	Carr Type /Stage No	Carr Size (in)	Phasing (°)	Charge Desc/Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
11/26/201 2	MESAVERDE/			8,723.0	8,726.0	3.00		0.360	EXP/	3.375	120.00		1	PRODUCTIO N	
12:00AM											400.00	garanteen 11 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	22.00	PRODUCTIO	
2	MESAVERDE/	C	CTT TO COLORE TO	8,744.0	8,745.0	3.00		0.360	EXP/	3.375	120.00			N PRODUCTIO	
12:00AM								0.000	EXP/	3.375	120.00	, , , , , , , , , , , , , , , , , , , ,	23 00	PRODUCTIO	
2	MESAVERDE/		Barrier on Approx. 1188178	8,763.0	8,764.0	3.00		0.360	EAP)	5.575	120.00			N	
12:00AM				0.700.0	0.704.0	200		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO	
2	MESAVERDE/	# P P P P P P P P P P P P P P P P P P P		8,783.0	8,784.0	3.00		0.360	LAF/	5.070	,20.00			N	
12:00AM			-	8,813.0	8,814.0	3.00	}	റ ദേദ	EXP/	3,375	120.00	HILLI HANNEL	23.00	PRODUCTIO	
2	MESAVERDE/			0,013.0	0,014.0	3.00		0.500		5,5,0			a a a a a a a a a a a a a a a a a a a	N	
12:00AM				8,840.0	8,841.0	3.00]	റ ദേദ	EXP/	3.375	120.00	Adversarior to the representation of the second community and the second	23.00	PRODUCTIO	
2	MESAVERDE/	A CANADA		0,040.0	0,041.0	3.00	- representative	0.500		THE PROPERTY I I I I I I I I I I I I I I I I I I I			With the Control of t	N	
12:00AM	MEO MICROEI			8.863.0	8,864.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO	
11/26/201 2 12:00AM	MESAVERDE/			0,000.0	0,004.0	, A substantian and the su	Anna ta mana ta					a della dell		N	
	MESAVERDE/			8.871.0	8,872.0	3.00		0.360	EXP/	3,375	120.00		23.00	PRODUCTIO	
2 12:00AM	WEGAVERBE/		en e											N N	
11/26/201 2	MESAVERDE/			8,924.0	8,925.0	3.00		0.360	EXP/	3,375	120.00		23.00	PRODUCTIO N	
12:00AM	61)							0.70	D EXP/	3.375	120.00		23.00	PRODUCTIO	
2	MESAVERDE/		C C	8,941.0	8,942.0	3.00		0.36	J EAP/	J.J/\	120.00	T Primary Control		N	
12:00AM 11/26/201	MESAVERDE/			8,955.0	8,956.	3.00)	0.36	0 EXP/	3.37	120.00)	23.00	PRODUCTIO N	
2 12:00AM													23.00	PRODUCTIO	
11/26/201 2	MESAVERDE/			9,002.0	9,003.	0 3.00		0.36	0 EXP/	3.37	120.00	J	∠3.00	N N	
12:00AM									A EVDI	2 27	5 120.00	A CHITCHIS AND THE RESIDENCE OF THE PROPERTY O	23.00	PRODUCTIO	
2	MESAVERDE/	and the state of t		9,023.0	9,024.	0 3.00		0.36	0 EXP/	3.37	5 120.00	J	23.00	N	
12:00AM				0.000	0.007	n 2~	<u> </u>	0.36	0 EXP/	3.37	5 120.00)	23.00	PRODUCTIO	İ
11/26/201 2 12:00AM	MESAVERDE/			9,066.0	9,067.	0 3.00	J	0.50	LAF	3.37	120.00		Control of the Contro	N	

Date	Formation/ Reservoir	CCL@ (usft)	CCL-T S (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add, Shot	Diamete r (in)	Carr Type /Stage No	Carr Size (in)	Phasing (°).	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
11/26/201 2 12:00AM	MESAVERDE/			9,075.0	9,076.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
	MESAVERDE/			9,093.0	9,094.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/26/201 2 12:00AM	MESAVERDE/			9,188.0	9,189.0	3.00		0.360	EXP/	3,375	120.00		23.00	PRODUCTIO N	
11/26/201 2 12:00AM	MESAVERDE/	The state of the s		9,210.0	9,211.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/26/201 2 12:00AM	MESAVERDE/			9,263.0	9,264.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
	MESAVERDE/	A A WILLIAM TO THE STATE OF THE		9,278.0	9,279.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
	MESAVERDE/	A CONTRACTOR OF THE CONTRACTOR	Total taken below	9,289.0	9,290.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
	MESAVERDE/		VIVO COMPANY	9,305.0	9,306.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
**************************************	MESAVERDE/		To the state of th	9,377.0	9,379.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	

3 Plots

					Opera	tion S	Summa	ry Report	
Well: MORGAN	STATE 92	1-36K1CS	YELLOW					Spud Date: 5/20	
Project: UTAH-U	JINTAH	<u> </u>		Site: MO	RGAN ST	ATE 921	-36F3 PAI)	Rig Name No: MILES 2/2
Event: COMPLE	TION			Start Dat	e: 11/21/2	2012			End Date: 12/12/2012
Active Datum: R Level)	KB @5,02	9.00usft (ab	ove Mean Se	а	UWI: SI	E/NW/0/9	a/S/21/E/36	6/0/0/26/PM/N/228	
Date	The state of the s	ime rt-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
5/20/2012		-							
5/21/2012		-							
5/22/2012		-							
11/21/2012	7:00	- 9:00	2.00	FRAC	33	D	Р		RU HOT OILER, FILLED SURFACE CSG WITH 1/2 BBL TMAC
									PRESSURED TO 1000 PSI HELD 2 MIN NO BLEED OFF
									BLED WELL DOWN
11/26/2012	8:45	- 9:30	0.75	FRAC	33	С	Р		FILL SURFACE CSG. MIRU B&C QUICK TEST. 1ST PSI TEST T/ 7000 PSI. HELD FOR 15 MIN LOST
									70 PSI.
									NO COMMUNICATION OR MIGRATION WITH SURFACE CSG
									BLEED OFF PSI. MOVE T/ NEXT WELL. SWIFW
11/30/2012	9:00	- 10:30	1.50	FRAC	37		Р		HELD SAFETY MEETING: CRANES AND FLOW LINES
									PERF STG 1)PU 3 1/8 EXP GUN, 23 GM, .36 HOLE
									SIZE. 90 DEG PHASING, RIH PERF AS PER PERF DESIGN. POOH. SWIFW
12/3/2012	6:45	- 7:00	0.25	FRAC	48		Р		HSM. HIGH PSI LINES & WL AWARENESS.

Operation Summary Report

All: MORGAN	STATE 921-36K1CS	YELLOW					Spud Date: 5/2	20/2012		
roject: UTAH-l			Site: MO	ORGAN STATE 921-36F3 PAD				Rig Name No: MILES 2/2		
vent: COMPLE			Start Dat	te: 11/21/2012				End Date: 12/12/2012		
		bove Mean S	!	UWI: SE/NW/0/9/S/21/E/36/0/0/26/PM/N/2				281/W/0/1807/0/0		
Active Datum: RKB @5,029.00usft (above Mean Sea Level)						···				
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation		
	7:00 - 18:00	11.00	FRAC	36	В	P		FRAC STG 1)WHP 1464 PSI, BRK 2806 PSI @ 4.7 BPM. ISIP 2047 PSI, FG. 0.66, CALC PERFS OPEN @ 37.9 BPM @ 6013 PSI = 63% HOLES OPEN. ISIP 2662 PSI, FG. 0.73, NPI 615 PSI. MP 6385 PSI, MR 41.6 BPM, AP 6109 PSI, AR 39.4 BPM, PUMPED 30/50 OWATTA SAND. SWI, XO T/ WL. PERF STG 2)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 120 DEG PHASING. RIH SET CBP @ 9124' P/U PERF AS PER DESIGN. POOH, XO T/ FRAC. FRAC STG 2)WHP 1422 PSI, BRK 3367 PSI @ 4.7 BPM. ISIP 2320 PSI, FG. 0.7, CALC PERFS OPEN @ 44.9 BPM @ 6100 PSI = 63% HOLES OPEN. ISIP 2900 PSI, FG. 0.76, NPI 580 PSI. MP 6512 PSI, MR 44.4 BPM, AP 6177 PSI, AR 40.6 BPM, PUMPED 30/50 OWATTA SAND. SWI, XO T/ WL. PERF STG 3)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 120 DEG PHASING. RIH SET CBP @ 8902' P/U PERF AS PER DESIGN. POOH, XO T/ FRAC. FRAC STG 3)WHP 646 PSI, BRK 2786 PSI @ 4.7 BPM. ISIP 2110 PSI, FG. 0.68, CALC PERFS OPEN @ 48.5 BPM @ 5856 PSI = 67% HOLES OPEN. ISIP 2451 PSI, FG. 0.72, NPI 341 PSI. MP 6618 PSI, MR 48.3 BPM, AP 6162 PSI, AR 42.9 BPM, PUMPED 30/50 OWATTA SAND. SWI, XO T/ WL. PERF STG 4)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 120 DEG PHASING. RIH SET CBP @ 8708' P/U PERF AS PER DESIGN. POOH, SWIFN.		
12/4/2012	6:45 - 7:00	0.25	FRAC	48		Р		HSM. HIGH PSI LINES & WL AWARENESS.		

1/2/2013 10:35:46AM

				Opera	tion S	Summa	ry Report			
Well: MORGAN	STATE 921-36K1CS	YELLOW					Spud Date: 5/2	The state of the s		
Project: UTAH-	UINTAH		Site: MOI	RGAN ST	ATE 921	-36F3 PA	D	Rig Name No: MILES 2/2		
Event: COMPLI	ETION		Start Dat					End Date: 12/12/2012		
Active Datum: F Level)	RKB @5,029.00usft (a	above Mean S	ea	UWI: SE/NW/0/9/S/21/E/36/0/0/26/PM/N/2281/W/0/1807/0/0						
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation		
	7:00 - 7:00	0.00	FRAC	36	В	Р		FRAC STG 4)WHP 1733 PSI, BRK 2511 PSI @ 4.7 BPM. ISIP 1995 PSI, FG .0.67, CALC PERFS OPEN @ 50.8 BPM @ 1691 PSI = 67% HOLES OPEN. ISIP 2422 PSI, FG .0.72, NPI 427 PSI. MP 6724 PSI, MR 47.1 BPM, AP 6346 PSI, AR 44.6 BPM, PUMPED 30/50 OWATTA SAND. SWI, XO T/ WL.		
								PERF STG 5)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 120 DEG PHASING. RIH SET CBP @ 8428'. P/U T/ PERF, SHOT 1st THREE GUN'S AS DESIGN. 4th,5th,6th gun went all at once. makeing 9 holes f/ 8273'-8276', instead of 3 holes f/ 8275'-8276. POOH, P/U NEW GUNS. RIH SHOOT TOP 2 GUNS AS DESIGN. TOTAL HOLES IN STG 5 = 27 HOLES.		
								FRAC STG 5)WHP 438 PSI, BRK 2541 PSI @ 4.7 BPM. ISIP 1900 PSI, FG .0.67, CALC PERFS OPEN @ 50.2 BPM @ 6425 PSI = 63% HOLES OPEN. ISIP 2708 PSI, FG .0.77, NPI 808 PSI. MP 6731 PSI, MR 50.6 BPM, AP 6249 PSI, AR 46.3 BPM, PUMPED 30/50 OWATTA SAND. SWI, XO T WL.		
								PERF STG 6)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 120 DEG PHASING. RIH SET CBP @ 7966' P/U PERF AS PER DESIGN. POOH, XO T/ FRAC.		
								FRAC STG 6)WHP 575 PSI, BRK 2242 PSI @ 4.7 BPM. ISIP 1416 PSI, FG .0.62, CALC PERFS OPEN @ 50.3 BPM @ 6129 PSI = 67% HOLES OPEN. ISIP 2334 PSI, FG .0.74, NPI 918 PSI. MP 6747 PSI, MR 50.9 BPM, AP 6450 PSI, AR 46.2 BPM, PUMPED 30/50 OWATTA SAND. SWI, XO T/ WL.		
								PERF STG 7)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 120 DEG PHASING. RIH SET CBP @ 7716' P/U PERF AS PER DESIGN. POOH, XO T/FRAC.		
								FRAC STG 7)WHP 1575 PSI, BRK 2005 PSI @ 4.7 BPM. ISIP 1591 PSI, FG .0.65, CALC PERFS OPEN @ 50.4 BPM @ 4907 PSI = 75% HOLES OPEN. ISIP 1995 PSI, FG .0.7, NPI 404 PSI. MP 6607 PSI, MR 50.7 BPM, AP 6097 PSI, AR 49.2 BPM, PUMPED 30/50 OWATTA SAND. SWI, XO T/ WL.		
								PERF STG 8)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 120 DEG PHASING. RIH SET CBP @ 7458' P/U PERF AS PER DESIGN. POOH, XO T/ FRAC.		
								FRAC STG 8)WHP 989 PSI, BRK 1723 PSI @ 4.7 BPM. ISIP 1176 PSI, FG .0.6, CALC PERFS OPEN @ 45.3 BPM @ 4366 PSI = 67% HOLES OPEN. ISIP		

1/2/2013 10:35:46AM

1911 PSI, FG .0.7, NPI 735 PSI. MP 5574 PSI, MR

Operation Summary Report

Nell: MORGAN S	STATE 921-36K1	CS YELLOW _					Spud Date: 5/2		
Project: UTAH-UI	INTAH		Site: MO	RGAN ST	ATE 921	-36F3 PA[Rig Name No: MILES 2/2	
Event: COMPLET	TION		Start Dat	e: 11/21/2	2012			End Date: 12/12/2012	
Active Datum: Rk	KB @5,029.00usf	(above Mean S	ea	UWI: SI	E/NW/0/9	/S/21/E/36	/0/0/26/PM/N/22	281/W/0/1807/0/0	
_evel) Date	Time	Duration	Phase	Code	Sub Code	P/U	MD From (usft)	Operation	
12/5/2012	7:00 - 18:00	11.00	FRAC	36	В	P		46.2 BPM, AP 5401 PSI, AR 44.9 BPM, PUMPED 30/50 OWATTA SAND. SWI, XO T/ WL. AFTER PUMPING THIS STG, CLUTCH WENT OUT ON THE BLENDER MOTOR. (THIS MOTOR CONTROLS DISCHARGE PUMP, THIS PUMP PUSHES WATER OUT OF THE TUB T/ THE PUMPS) DONE FRACING T/DAY. PERF STG 9)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE.120 DEG PHASING, RIH SET CBP @ 7191' P/U PERF AS PER DESIGN. POOH. SWIFN. FRAC STG 9)WHP 311 PSI, BRK 1806 PSI @ 4.7 BPM. ISIP 989 PSI, FG .0.58, CALC PERFS OPEN @ 50.9 BPM @ 4936 PSI = 67% HOLES OPEN. ISIP 2227 PSI, FG .0.75, NPI 1238 PSI. MP 6246 PSI, MR 51.1 BPM, AP 5906 PSI, AR 50.6 BPM, PUMPED 30/50 OWATTA SAND. SWI, XO T/ WL. PERF STG 10)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 120 DEG PHASING. RIH SET CBP @ 6880' P/U PERF AS PER DESIGN. POOH, XO T/ FRAC. FRAC STG 10)WHP 604 PSI, BRK 2663 PSI @ 4.7 BPM. ISIP 1741 PSI, FG .0.7, CALC PERFS OPEN @ 50.9 BPM @ 5859 PSI = 71% HOLES OPEN. ISIP 2057 PSI, FG .0.74, NPI 316 PSI. MP 6607 PSI, MR 51.2 BPM, AP 6068 PSI, AR 50.7 BPM, PUMPED 30/50 OWATTA SAND. SWI, XO T/ WL. PU 4 1/2 8K HAL CBP. RIH SET KILL PLUG @ 6595' POOH. SWI. DONE FRACING THIS WELL. RD OFF THIS WELL. TOTAL SAND = 258,094 LBS TOTAL CLFL = 11,069 BBL	
12/11/2012	12:00 - 17:0	5.00	DRLOUT	44	С	Р		MIRU,NDWH, NU BOP'S, TEST BOP'S, PU SN, POBS, BIT, TIH 145 JTS, EOT 4586', SWIFN	
12/12/2012	7:00 - 7:30	0.50	DRLOUT	48		Р		LANDING TBG	

Operation Summary Report

ell: MORGAN	STATE 921-36K1CS	YELLOW					Spud Date: 5/2	20/2012	
roject: UTAH-L			Site: MOF	RGAN STATE 921-36F3 PAD				Rig Name No: MILES 2/2	
vent: COMPLE	ETION		Start Date	te: 11/21/2012				End Date: 12/12/2012	
ctive Datum: R	RKB @5,029.00usft (al	bove Mean S				S/21/E/36	21/E/36/0/0/26/PM/N/2281/W/0/1807/0/0		
evel) Date	Time Duration Start-End (hr)		Phase	Code	Sub Code	P/U	MD From (usft)	Operation	
	7:30 - 17:00	9.50	DRLOUT	44	C	P	July	TIH 208 JTS, TAG PLUG# 1, MILL 10 PLUGS, C/O TO PBTD, BREAK CIRC FOR 30 MIN, POOH LD 18 JTS, LAND TBG 280 JTS, 8880.05', ND BOP'S, NUWH, TEST FLOW LINE,3,000#, POBS, 2500#, TURN TO FLOW BACK, RDMO PLUG# 1 6594' 0' SAND 5 MIN 200# KICK PLUG# 2 6880' 10' SAND 5 MIN 200# KICK PLUG# 3 7191' 30' SAND 5 MIN 200# KICK	
								PLUG#4 7458 30' SAND 5 MIN 400# KICK PLUG#5 7716' 20' SAND 5 MIN 200# KICK PLUG#6 7966' 30' SAND 5 MIN 500# KICK PLUG#7 8428' 20' SAND 5 MIN 900# KICK PLUG#8 8708' 20' SAND 7 MIN 800# KICK PLUG#9 8902' 20' SAND 7 MIN 600# KICK PLUG#10 9124' 20' SAND 5 MIN 600# KICK	
								C/O 30' SAND9431', 298 JTS, TBG 280 JTS 8853.02' HANGER .83' KB 24.00' SN 1.875" 2.20' EOT 8880.05'	
	17:00 - 17:00	0.00	DRLOUT	50				FRAC WTR 11,069 BBLS RCVD 2500 BBLS LTR 8,569 BBLS WELL TURNED TO SALES @ 1530 HR ON	
		5.55	2,,2031					12/12/2012. 2208 MCFD, 1560 BWPD, FCP 2450#, FTP 2200#, 20/64" CK.	
12/13/2012	7:00 -			50				WELL IP'D ON 12/13/12 - 1883 MCFD, 0 BWPD, 0 BOPD, CP 3121#, FTP 2307#, LP 93#, 24 HRS, CK 20/64	

1/2/2013 10:35:46AM



Site: MORGAN STATE 921-36F3 PAD Well: MORGAN STATE 921-36K1CS

Design: OH

Wellbore: OH

WELL DETAILS: MORGAN STATE 921-36K1CS

GL 5005 & KB 24 @ 5029.00ft (HP 318)

Northing 14527206.96 0.00

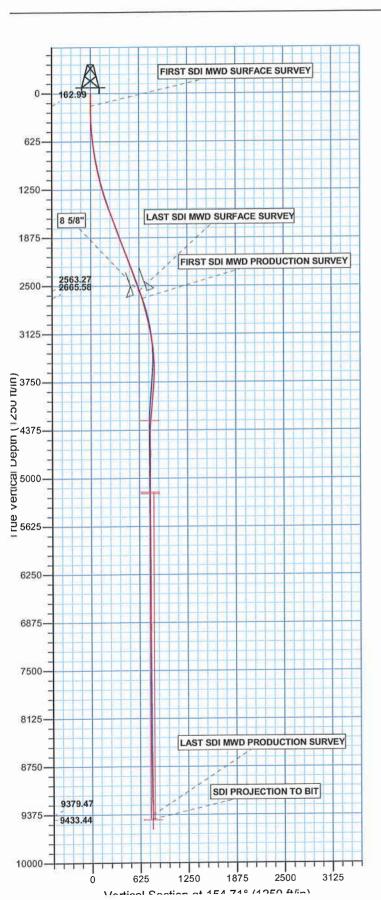
Longitude -109.502341

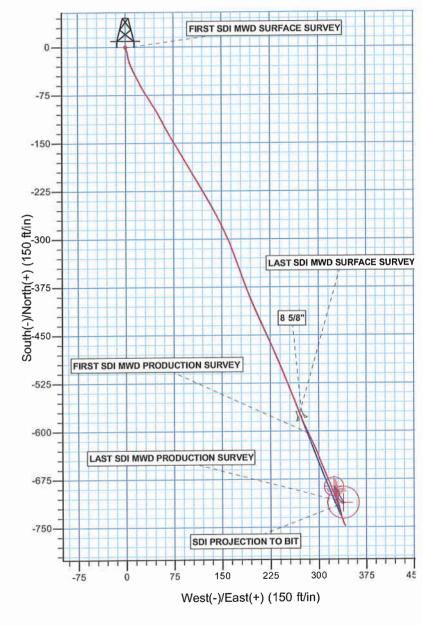




Azimuths to True North Magnetic North: 11.02°

> Magnetic Field Strength: 52279.0snT Dip Angle: 65.85° Date: 11/30/2011 Model: IGRF2010





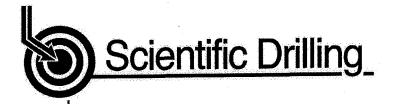
PROJECT DETAILS: UTAH - UTM (feet), NAD27, Zone 12N

Geodetic System: Universal Transverse Mercator (US Survey F Datum: NAD 1927 (NADCON CONUS) Ellipsoid: Clarke 1866 Zone: Zone 12N (114 W to 108 W)

Location: SECTION T9S R21E System Datum: Mean Sea Level

Design: OH (MORGAN STATE 921-36K1CS/OH)

Created Rir Cohe Kondall - Date: 9-50 August 23 2012



US ROCKIES REGION PLANNING

UTAH - UTM (feet), NAD27, Zone 12N MORGAN STATE 921-36F3 PAD MORGAN STATE 921-36K1CS

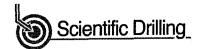
OH

Design: OH

Standard Survey Report

23 August, 2012







Company:

US ROCKIES REGION PLANNING

Project: Site:

UTAH - UTM (feet), NAD27, Zone 12N MORGAN STATE 921-36F3 PAD

Well: Wellbore:

Design:

MORGAN STATE 921-36K1CS OH OH

Local Co-ordinate Reference:

TVD Reference: MD Reference:

North Reference:

Survey Calculation Method:

Database:

Well MORGAN STATE 921-36K1CS

GL 5005 & KB 24 @ 5029.00ft (HP 318) GL 5005 & KB 24 @ 5029.00ft (HP 318)

Minimum Curvature

EDM 5000.1 Single User Db

Project

UTAH - UTM (feet), NAD27, Zone 12N

Map System:

Universal Transverse Mercator (US Survey Feet)

NAD 1927 (NADCON CONUS) Geo Datum:

Map Zone:

Zone 12N (114 W to 108 W)

System Datum:

Mean Sea Level

MORGAN STATE 921-36F3 PAD, SECTION T9S R21E Site

Site Position:

Northing:

14,527,221.76 usft

Latitude:

Longitude:

39.993555

From:

Lat/Long

Easting:

2,059,910.07 usft

-109.502292

Position Uncertainty:

0.00 ft

Slot Radius:

13.200 in

Grid Convergence:

0.96°

MORGAN STATE 921-36K1CS, 228 FNL 1807 FWL Well

Well Position

+N/-S +E/-W 0.00 ft 0.00 ft

Northing: Easting:

11/30/11

0.00

14,527,206.96 usft 2,059,896.59 usft

11.02

Latitude: Longitude:

39.993515 -109.502341

Position Uncertainty

0.00 ft

Wellhead Elevation:

ft

Ground Level:

65.85

5,005.00 ft

ОН

OH

Magnetics

Wellbore

Model Name

Sample Date

Declination (°)

Dip Angle (°)

Field Strength

(nT)

154.71

Design

Audit Notes:

Version: 1.0

Phase:

ACTUAL

Tie On Depth:

0.00

52,279

Vertical Section:

Depth From (TVD)

IGRF2010

+E/-W +N/-S

Direction

(ft) 0.00 (ft) 0.00

Survey Program

From

(ft)

Date

Τo (ft)

Survey (Wellbore)

Tool Name

Description

SDI MWD - Standard ver 1.0.1

20.00 2,771.00

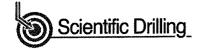
2,663.00 Survey #1 SDI SURFACE MWD (OH) 9,558.00 Survey #2 SDI MWD PRODUCTION (OH)

08/22/12

SDI MWD SDI MWD

SDI MWD - Standard ver 1.0.1

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
20.00	0.00	0.00	20.00	0.00	0.00	0.00	0.00	0.00	0.0
163.00	0.97	160.02	162.99	-1.14	0.41	1.21	0.68	0.68	0.0
	IWD SURFACE S	SURVEY							
191.00	1.23	151.76	190.99	-1.63	0.64	1.74	1.09	0.93	-29.5
219.00	1.23	160.11	218.98	-2.17	0.88	2.34	0.64	0.00	29.8
247.00	1.41	163.54	246.97	-2.79	1.08	2.98	0.70	0.64	12.2
	2.20	159.93	332.93	-5.35	1.95	5.67	0.93	0.92	-4.2
333.00		165.56	362.91	-6.54	2.31	6.90	1.40	1.17	18.7
363.00 453.00	2.55 3.61	168.46	452.77	-11.25	3.38	11,62	1.19	1.18	3.2





Company: Project:

Site:

Well:

US ROCKIES REGION PLANNING UTAH - UTM (feet), NAD27, Zone 12N MORGAN STATE 921-36F3 PAD MORGAN STATE 921-36K1CS

Wellbore: OH

Design: OH

Local Co-ordinate Reference:

TVD Reference:

MD Reference: North Reference:

Survey Calculation Method:

Database:

Well MORGAN STATE 921-36K1CS GL 5005 & KB 24 @ 5029.00ft (HP 318) GL 5005 & KB 24 @ 5029.00ft (HP 318)

True

Minimum Curvature

EDM 5000.1 Single User Db

	Elektrica allandari	diction and the Color	o tregania						
Measured			Vertical			Vertical	Dogleg	Build	Turn
мeasurea Depth	Inclination	Azimuth	Depth	+N/-S	+E/-W	Section	Rate	Rate	Rate
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(°/100ft)	(°/100ft)	(°/100ft)
543.00	5.19	168.55	542.51	-18.02	4.75	18.32	1.76	1.76	0.10
J43.00	3,18	100.00	372.01	10.02	0				
633.00	7.01	157.87	632.00	-27.10	7.63	27.76	2.37	2.02	-11.87
723.00	8.59	155.02	721.16	-38.28	12.54	39.97	1.81	1.76	-3.17
813.00	9.79	152.14	810.00	-51.14	18.95	54.33	1.43	1.33	-3.20
903.00	10.84	149.98	898.55	-65.23	26.76	70.41	1.24	1.17	-2.40
993.00	12.13	147.46	986.74	-80.53	36.08	88.22	1.54	1.43	-2.80
1,083.00	13.27	149.08	1,074.54	-97.36	46,48	107.89	1.33	1.27	1.80
1,173.00	14.16	152.60	1,161.98	-116.00	56.85	129.17	1.36	0.99	3.91
1,263.00	15.56	149.74	1,248.97	-136.20	68.00	152.19	1.76	1.56	-3.18
1,353.00	17.15	148.16	1,335.32	-157.90	81.08	177.40	1.83	1.77	-1.76
1,443.00	18.47	150.09	1,421.01	-181.53	95.19	204.80	1.61	1.47	2.14
1,533.00	20.75	148.86	1,505.78	-207.54	110.55	234.87	2.57	2.53	- 1.37
1,623.00	21.28	150.00	1,589.80	-235.33	126.96	267.01	0.74	0.59	1.27
1,713.00	20.40	152.02	1,673.91	-263.32	142.49	298.96	1.26	-0.98	2.24
1,803.00	20.14	155.71	1,758.34	-291.30	156.22	330.12	1.45	-0.29	4.10
1,803.00	20.58	159.23	1,842.72	-320.21	168.20	361.38	1.45	0.49	3.91
	04.40	100.00	4 000 70	250 57	179.18	393.51	1.20	0.98	1.96
1,983.00	21.46	160.99	1,926.73	-350.57	179.10	425.91	0.98	-0.59	-2.16
2,073.00	20.93	159.05	2,010.64	-381.15	202.41	457.75	1.17	-0.39	-3.12
2,163.00	20.58	156.24	2,094.80	-410.64			0.65	-0.20	-1.76
2,253.00	20.40	154.66	2,179.11	-439.29	215.49	489.25		0.00	2.73
2,343.00	20.40	157.12	2,263.47	- 467.92	228.31	520.61	0.95	0.00	2.13
2,433.00	21.10	156.88	2,347.63	-497.27	240.77	552.47	0.78	0.78	-0.27
2,523.00	20.66	158.97	2,431.72	-526.99	252.82	584.49	0.96	-0.49	2.32
2,613.00	19.79	158.79	2,516.17	-556.02	264.03	615.52	0.97	-0.97	-0.20
2,663.00	19.43	158.79	2,563.27	-571.66	270.11	632.26	0.72	-0.72	0.00
LAST SDI M	WD SURFACE S	URVEY							
2,771.00	17.94	153.48	2,665.58	-603.29	284.03	666.81	2.09	-1.38	-4.92
FIRST SDI N	IWD PRODUCTION	ON SURVEY							
2,866.00	15.56	157.35	2,756.55	-628.15	295.48	694.17	2.77	-2.51	4.07
2,960.00	12.94	158.38	2,847.65	-649.57	304.21	717.27	2.80	-2.79	1.10
3,055.00	12.93	157.96	2,940.24	-669.31	312.12	738.50	0.10	-0.01	-0.44
3,149.00	12.75	157.00	3,031.89	-688.61	320.12	759.36	0.30	-0.19	-1.02
3,244.00	11.17	161.13	3,124.82	-706.97	327.19	778.98	1.89	-1.66	4.35
3,338.00	9.06	162.71	3,217.36	- 722.65	332.33	795.36	2.26	-2.24	1.68
3,432.00	5.98	164.20	3,310.54	-734.43	335.87	807.52	3.28	-3.28	1.59
	3.98	156.29	3,405.19	-742.06	338.47	815.54	2.42	-2.32	-8.33
3,527.00	2.02	145.22	3,499.06	-742.00 -746.26	340.67	820.27	1.96	-1.87	-11.78
3,621.00 3,716.00	0.35	233.55	3,594.04	-747.81	341.39	821.98	2.15	-1.76	92.98
3,7 10.00	0,00	200.00		. 11.01					
3,810.00	1.67	341.04	3,688.03	-746.68	340.71	820.67	1.92	1.40	114.35 - 3.61
3,905.00	3.08	337.61	3,782.95	-743.01	339.29	816.75	1.49	1.48	
3,999.00	5.01	338.93	3,876.71	-736.85	336.85	810.13	2.06	2.05	1.40
4,093.00	6.16	339.55	3,970.26 4,064.75	-728.29 -718.86	333.61 330.83	801.01 791.30	1.23 1.00	1.22 -0.43	0.66 8.68





Company: Project:

Site:

US ROCKIES REGION PLANNING UTAH - UTM (feet), NAD27, Zone 12N MORGAN STATE 921-36F3 PAD

MORGAN STATE 921-36K1CS

Well:

Wellbore: OH
Design: OH

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Database:

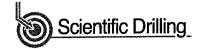
Well MORGAN STATE 921-36K1CS GL 5005 & KB 24 @ 5029.00ft (HP 318) GL 5005 & KB 24 @ 5029.00ft (HP 318)

True

Minimum Curvature

EDM 5000.1 Single User Db

ey .		on in PayMore days					C49406185-111	ritis agus 5.4%	
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (*/180ft)	Turn Rate (°/100ft)
	CHRONIC POSSOCIONIS (C.C.)	Complete Committee Complete Committee Committe		11.00	328.95	783.45	1.84	-1.82	-3.54
4,282.00	4.04	344.47	4,158.40	-711.07 -704.37	327.70	776.85	0.76	0.19	10.26
4,377.00	4.22	354.22	4,253.16		328.02	770.83	2.08	-1.50	24.22
4,471.00	2.81	16.99	4,346.98	-698.72				-1.50 -1.59	30.20
4,565.00	1.32	45.38	4,440.92	-695.76	329.47	769.82	1.88	-0.83	78.82
4,660.00	0.53	120.26	4,535.91	-695.21	330.63	769.82	1.36	-0.03	76.62
4,754.00	0.54	235.86	4,629.91	-695.68	330.63	770.25	0.96	0.01	122.98
4,849.00	0.62	264.84	4,724.90	-695.98	329.75	770.14	0.32	0.08	30.51
4,943.00	0.38	247.31	4,818.90	-696.14	328.96	769.95	0.30	-0.26	-18.65
5,037.00	0.97	323.02	4,912.89	-695.63	328.19	769.16	1.01	0.63	80.54
5,131.00	0.53	313.27	5,006.89	-694.69	327.40	767.98	0.49	-0.47	-10.37
5,226.00	0.44	292.96	5,101.88	-694.25	326.74	767.30	0.20	-0.09	-21.38
5,320.00	0.70	256.31	5,195.88	-694.25	325.85	766.91	0.46	0.28	-38.99
5,414.00	0.46	202.11	5,289.87	-694.73	325.15	767.05	0.61	-0.26	<i>-</i> 57.66
5,508.00	0.53	193.47	5,383.87	-695.50	324.91	767.65	0.11	0.07	-9.19
5,603.00	0.70	180.02	5,478.86	-696.51	324.80	768.51	0.23	0.18	-14.16
5 007 00	0.07	100.66	5,572.85	-697.88	324.77	769.73	0.29	0.29	2.81
5,697.00	0.97	182.66	•	-699.00	324.77	770.80	0.66	-0.56	-30.95
5,791.00	0.44	153.57	5,666.85		325.11	770.86	0.88	0.00	-152.28
5,886.00	0.44	8.90	5,761.85	-698.97	325.11	770.38	0.88	-0.19	-4.96
5,980.00 6,075.00	0.26 0.18	4.24 24.72	5,855.84 5,950.84	-698.40 -698.05	325.16	770.09	0.12	-0.08	21.56
·				227.04	225 52	770 11	0.00	0.00	76.77
6,169.00	0.26	96.88	6,044.84	-697.94	325.53	770.11	0.28	0.09 0.00	16.73
6,263.00	0.26	112.61	6,138.84	-698.04	325.94	770.38	0.08		
6,358.00	0.62	140.83	6,233.84	-698.53	326.47	771.04	0.43	0.38	29.71
6,452.00	0.88	160.95	6,327.83	-699.60	327.02	772.25	0.39	0.28	21.40
6,547.00	0.44	302.63	6,422.83	-700.10	326.95	772.67	1.32	-0.46	149.14
6,641.00	0.26	242.87	6,516.83	-700.00	326.46	772.37	0.41	-0.19	-63.57
6,736.00	0.26	212.98	6,611.83	-700.28	326.15	772.49	0.14	0.00	-31.46
6,830.00	0.44	199.54	6,705.82	-700.80	325.91	772.86	0.21	0.19	-14.30
6,925.00	0.53	203.14	6,800.82	-701.54	325.62	773.41	0.10	0.09	3.79
7,019.00	0.79	172.64	6,894.81	-702.59	325.53	774.32	0.46	0.28	-32.45
7,113.00	0.62	301.31	6,988.81	-702.96	325.18	774.51	1.35	-0.18	136.88
7,208.00	1.49	355.10	7,083.80	-701.47	324.63	772.92	1.29	0.92	56.62
7,302.00	1.23	2.75	7,177.77	-699.24	324.58	770.88	0.34	-0.28	8.14
7,397.00	0.97	9.43	7,272.75	-697.43	324.76	769.32	0.30	-0.27	7.03
7,491.00	0.88	21.82	7,366.74	-695.97	325.16	768.18	0.23	-0.10	13.18
7 505 00	0.70	20.69	7,460.73	-694.70	325.66	767.24	0.10	-0.10	-1.21
7,585.00	0.79	20.68	7,460.73 7,555.72	-693.43	326.36	766.39	0.10	0.19	16.09
7,680.00	0.97	35.97	7,555.7 <i>2</i> 7,648.71	-693.43 -692.69	327.31	766.13	0.70	-0.38	44.99
7,773.00	0.62	77.81			327.31	766.13 766.44	0.70	0.08	6.28
7,868.00 7,962.00	0.70 0.79	83.78 101.01	7,743.70 7,837.70	-692.52 -692.58	328.39 329.60	765.44 767.01	0.11	0.00	18.33
1,302.00	0.73	101.01	.,007.70	JUL.00	5_5.55				
8,057.00	1.06	125.97	7,932.68	-693.22	330.95	768.17	0.50	0.28	26.27
8,151.00	0.97	173.08	8,026.67	-694.52	331.75	769.68	0.87	-0.10	50.12
8,246.00	0.97	174.22	8,121.66	-696.12	331.93	771.20	0.02	0.00	1.20
8,340.00	0.53	220.28	8,215.65	-697.24	331.73	772.13	0.76	-0.47	49.00





Company: Project: US ROCKIES REGION PLANNING UTAH - UTM (feet), NAD27, Zone 12N MORGAN STATE 921-36F3 PAD

Site: Well: Wellbore:

Design:

MORGAN STATE 921-36K1CS OH OH Local Co-ordinate Reference:

TVD Reference:

MD Reference: North Reference:

Survey Calculation Method:

Database:

Well MORGAN STATE 921-36K1CS

GL 5005 & KB 24 @ 5029.00ft (HP 318) GL 5005 & KB 24 @ 5029.00ft (HP 318)

True

Minimum Curvature

EDM 5000.1 Single User Db

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
8,435.00	0.97	203.67	8,310.64	-698.32	331.12	772.84	0.51	0.46	-17.48
8,529.00	1.14	197.78	8,404.63	-699.94	330.52	774.05	0.21	0.18	-6.27
8,623.00	1.06	191.45	8,498.61	-701.68	330.06	775.43	0.15	-0.09	-6.73
8,717.00	0.79	181.96	8,592.60	-703.18	329.87	776.70	0.33	-0.29	-10.10
8,812.00	0.70	151.28	8,687.59	-704.34	330.12	777.86	0.42	-0.09	-32.29
8,906.00	0.70	146.10	8,781.58	-705.32	330.72	779.00	0.07	0.00	-5.51
9,000.00	0.88	143.20	8,875.57	-706.38	331.47	780.28	0.20	0.19	-3.09
9.095.00	0.97	156.38	8,970.56	-707.70	332.23	781.80	0.24	0.09	13.87
9.189.00	1.14	147.33	9,064.54	-709.21	333.05	783.52	0.25	0.18	-9.63
9,283.00	1,32	112.88	9,158.52	-710.42	334.56	785.25	0.80	0.19	-36.65
9,378.00	1.06	101.54	9,253.50	-711.02	336.42	786.60	0.37	-0.27	-11.94
9.472.00	1.58	104.79	9,347.48	-711.53	338.53	787.95	0.56	0.55	3.46
9,504.00	1.67	103.82	9,379.47	-711.75	339.41	788.53	0.29	0.28	-3.03
	WD PRODUCTIO	ON SURVEY							
9.558.00	1.67	103.82	9,433.44	-712.13	340.94	789.52	0.00	0.00	0.00

•	asing Points Measured Depth	Vertical Depth			Casing Diameter	Hole Diameter
5 to 1	(ft) 2,694.00	(ft) 2,592.54	8 5/8"	Name	(in) 8.625	(in) 11.000

Design Annotations	elikaco diseon asa	erendy (fra 1920) Francos (fra 1920)		
Measured Depth (ft)	Vertical Depth (ft)	Local Cool +N/-S (ft)	dinates +E/-W (ft)	Comment
163.00	162.99	-1.14	0.41	FIRST SDI MWD SURFACE SURVEY
2,663,00	2,563.27	-571.66	270.11	LAST SDI MWD SURFACE SURVEY
2.771.00	2,665.58	-603.29	284.03	FIRST SDI MWD PRODUCTION SURVEY
9,504.00	9,379.47	-711.75	339.41	LAST SDI MWD PRODUCTION SURVEY
9,558,00	9,433.44	-712.13	340.94	SDI PROJECTION TO BIT

Checked By:	Approved	Date: